



NEWARK BAY STUDY AREA

ADDITIONAL SITES AND CANDIDATE PRPS FOR THE NEWARK BAY STUDY AREA

VOLUME II OF II

EVIDENCE CONCERNING:

AMERICAN CYANAMID COMPANY

**PREPARED BY:
TIERRA SOLUTIONS, INC.**

**SUBMITTED TO:
USEPA REGION II**

OCTOBER 18, 2006



American Cyanamid Company
P.O. Box 31
Linden, NJ 07036
(201) 862-6000

April 4, 1990

CERTIFIED MAIL
Return Receipt Requested

P 032 450 744

Ms. Judy Spadone
Linden-Roselle Sewerage Authority
P. O. Box 4118
Linden, New Jersey 07036

Subject: American Cyanamid Company
Metals Analyses for Discharge

Dear Ms. Spadone:

Enclosed please find the results of American Cyanamid Company's metals analyses for our discharge for the month of February 1990. Submission of these data completes the required six months of sampling outlined in Discharge Permit No. 032 to Linden-Roselle Sewerage Authority (LRSA). The attached table of data presents all the analyses for the six month sampling period. There are several features of the data which warrant comment.

1. In general, results are comparable to previous analyses and indicate that, for all metals except iron, Cyanamid consistently meets the LRSA ordinance limits.
2. Data reported for Arsenic on the October 10, 1989 sample is inconsistent with results for all other months. We do not use arsenic in any of our processes, and cannot account for the high concentration of arsenic in this one sample. We believe the results are in error. *certify NV*
3. Cyanamid's discharge typically shows a range of iron concentrations, which may periodically be above the ordinance limit of 15 mg/l. As you know, this limit was suspended under our permit pending the results of this sampling program. The data obtained for this six month sampling period is consistent with previous results.

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BBC000007



Ms. Judy Spadone
April 4, 1990
Page -2-

We are enclosing a copy of our variance request submitted previously with the permit renewal application dated March 17, 1989. Cyanamid affirms our request for a variance for the iron limitation. We wish to note that this request, given our existing permit limitations, allows for a discharge of only 48 lbs./day iron.

This submission and any past or future communications or discussions regarding this matter are not intended to admit any fact or liability or to waive or affect any rights.

Sincerely,

AMERICAN CYANAMID COMPANY

Alice E. Boomhower

Alice E. Boomhower
Environmental Engineer

AEB:g
Enc.

955790004

CONCENTRATION
($\mu\text{g}/\text{l}$)

<u>Metal</u>	<u>Sample Date</u>						<u>Average</u>	<u>Standard Deviation</u>
	<u>9/20/89</u>	<u>10/10/89</u>	<u>11/16/89</u>	<u>12/20/90</u>	<u>1/16/90</u>	<u>2/28/90</u>		
As ✓	29	1500	10	3	23	40	320	660
Be ✓	< 1	< 5	< 1	< 1	< 1	< 1	< 5	-
Cd ✓	2	< 10	1.8	< 1	< 1	0.79	10	-
Cr ✓	470	290	410	36	140	370	290	160
Cu ✓	140	120	260	3.7	30	83	106	90
Fe ✓	15,000	21,000	19,000	2,700	NA	9,600	13,500	7,400
Pb ✓	2.3	< 50	28	7.4	5.9	16	< 18	18
Hg ✓	2.6	6.4	1.9	0.2	1.9	18	5.2	6.6
Ni ✓	440	420	490	31	260	310	320	170
Se ✓	< 4	< 10	< 4	< 4	< 10	< 20	< 20	-
Zn ✓	520	310	500	220	100	190	310	170

NA = Not analyzed, sample was collected but laboratory did not analyze.

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Client: American Cyanamid Company

Date: March 13, 1990

Address: P.O. Box 31
Linden, NJ 07036

Project No.: A21367

Date Submitted: February 28, 1990

Contact: Alice Boomhower

Sample Matrix: Aqueous

Project: L.R.S.A. Monthly

Analytical ResultsMetals, total

<u>Parameter</u>	<u>Sample Designation</u>	
	<u>Method</u> <u>Blank</u>	<u>A21367-1</u> <u>TA-1 Discharge</u>
Arsenic	4.0 U	40
Beryllium	1.0 U	1.0 U
Cadmium	1.0 U	0.79 J
Chromium	10 U	370
Copper	1.0 U	83
Iron	20.0 U	9,600
Lead	2.0 U	16
Mercury	0.2 U	18
Nickel	20 U	310
Selenium	20 U	20 U
Zinc	10 U	190
Units	(ug/l)	(ug/l)

U - Compound was analyzed for but not detected. The preceding number is the quantitation limit for the compound.

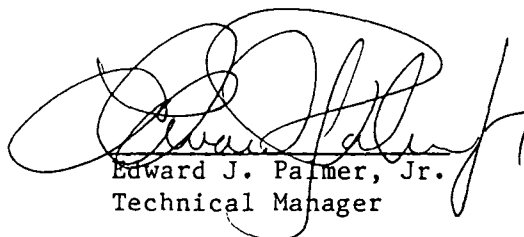
J - Compound was detected at levels below the practical quantitation limit. The level reported is approximate.

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Quality Control DataMetalsAqueous Matrix Spike/Matrix Spike Duplicate Recovery Data

<u>Parameter</u>	<u>Sample Spiked</u>	<u>Amount of Spike</u>	<u>Recovery</u> <u>MS</u> <u>MSD</u>
Arsenic	A21376-1	100	95 95
Beryllium	A21376-1	300	72 80
Cadmium	A21376-1	300	92 84
Chromium	A21376-1	300	75 83
Copper	A21376-1	300	81 86
Iron	A21384-1	300	* *
Iron	DI Water	300	96 --
Lead	A21376-1	300	97 100
Mercury	A21376-1	20	102 115
Nickel	A21376-1	300	68 76
Selenium	A21376-1	300	104 91
Zinc	A21376-1	300	71 80
Units		(ug)	(%) (%)

* Not recovered due to high concentration of analyte in sample .



Edward J. Palmer, Jr.
Technical Manager

EP/th

955790007

28 Springdale Road
Cherry Hill, New Jersey 08003
(609) 751-1122 • (215) 923-2068
Fax: (609) 751-0824

Chain-of-Custody

454 South Anderson Road BTC 532
Rock Hill, South Carolina 29730
(803) 329-9690
Fax: (803) 329-9689

Client: American Cyanamid Co.Project: Metals (Monthly)

AnalytiKEM Contact: _____

SAMPLE DESIGNATION	DATE	MATRIX	40 ml vials	950 ml Org. Pres.	100 ml Unpres.	ml HNO ₃	ml H ₂ SO ₄	ml NaOH	ml HCL	PARAMETERS			
TA-1 Discharge ^{Composite}	2/28/90	Aqueous			x								Metals - Cd, Cr, Cu, Pb, Ni, Zn, Hg, As, Be, Se, Fe
					Sample Requires Acidification								

Field Measurements:

II. Field Conditions/Comments: _____

Data Sheets: Y N

Filtered: Y Not Required

III. Special Instructions: _____
(Detection Limits, Data Package, etc.)

Relinquished By:	Time/Date:	Received By:	Time/Date:
G. Bonhauer	2/28/90 1:15pm	[Signature]	1:15 pm 2-28-90
			955790008

AnalytiKEM Inc.
28 Springdale Road
Cherry Hill, NJ 08003
609/751-1122
215/923-2068

CHAIN OF CUSTODY RECORD

Name of Unit and Address		American Cyanamid Co. P.O. Box 31 Linden NJ 07036				
Number	Item	Description of Samples				
1	1 L	TA-1 Discharge - Composite				
		Remarks:				
Person Assuming Responsibility for Samples:						
Collected by A. Baanhouer					Time 1:00 p.m.	Date 2/25
Number	Relinquished by:	Received by:	Time	Date	Reason for Change of Custody	
1	A. Baanhouer	Mark Mone	1:30	2/25/90		
Number	Relinquished by:	Received by:	Time	Date	Reason for Change of Custody	
	Mark Mone	Kim Joo	3:30	2-23-90		
Number	Relinquished by:	Received by:	Time	Date	Reason of Change of Custody	
Number	Relinquished by:	Received by:	Time	Date	Reason of Change of Custody	

THE LINDEN ROSELLE SEWERAGE AUTHORITY (LRSA)
P.O. Box 124, Linden, New Jersey 07036
(201) 862-7100

APPLICATION FOR VARIANCE FROM SEWER USE ORDINANCE
AND LRSA RULES AND REGULATIONS

Please check one: ☐ Initial Variance Application
☐ Variance Renewal
☒ Variance Modification

Date of Application: March 17, 1989

This variance application must be accompanied by a completed Industrial Discharge Permit Application. However, if an Industrial Discharge Permit Application has already been submitted to LRSA and facility operations or discharge characteristics have not changed substantially since the last submission, another discharge permit application is not at this time required.

Industrial Discharge Permit in Effect? ☐ No
☒ Yes, Expiration Date Interim

1. Company Name: American Cyanamid Company
2. Mailing Address: P.O. Box 31
Linden, New Jersey 07036
3. Facility Location: Foot of Tremley Point Road
Linden, New Jersey 07036
4. Contact Person: Alice E. Boomhower
Title: Environmental Engineer Phone No.: (201) 862-6000
5. For which specific section(s) of the sewer use ordinance of the City of Linden or the Borough of Roselle or of the LRSA Rules and Regulations is a variance being requested?

A variance is being requested for the load and concentration
limitations.

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6. List the discharge pollutant concentrations which will not be in compliance with the above referenced sections:

<u>Pollutant</u>	<u>Allowable Limit</u>	<u>Requested. Variance Level</u>
See Attached		

7. Explain the circumstances which make this variance request necessary (attached additional sheets if necessary):

See Attached

8. Certification:

The information contained in this application is familiar to me and, to the best of my knowledge and belief, such information is true, complete, and accurate.

Name of Signing Official: J. B. Reid
(typewritten)

Title: Vice President, Chemical Products Division
(typewritten)

3/16/89
Date

[Signature]
Signature

6.

<u>POLLUTANT</u>	<u>ALLOWABLE LIMIT</u>	<u>REQUESTED VARIANCE LEVEL</u>	
BOD	600 ppm	10,000 lb/day monthly average 15,000 lb/day daily maximum	*
COD	1,000 ppm	30,000 lb/day monthly average 45,000 lb/day daily maximum	*
TSS	600 ppm	1,000 lb/day monthly average 2,000 lb/day daily maximum	*
Iron	15 ppm	40 ppm X	
Total Solids	2,000 ppm	20,000 ppm	
Settleable Solids	10 ppm	No limit	
Sulfides	0.2 ppm	Suspend limit pending study by LRSA approved consultant	
Oil & Grease	50 ppm	Suspend limit pending results of methods study (Petroleum Hydrocarbons vs. Gravimetric Oil & Grease), and identification of extractable constituents.	

* This variance request is for load based limitations instead of concentration based limitations.

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7. The requested variance levels are consistent with the characteristics of the wastewaters discharged to the Authority during 1988. Each proposed variance request has been discussed with the Authority, and the discharge levels given in No. 6 have been approved by the technical personnel at LRSA. These wastewaters are compatible with the treatment process at LRSA. Imposition of the ordinance limitations to our discharge would impose an excessive economic and manpower burden on our operations.

BOD AND COD

This variance request replaces the existing load-based parameters with new limits proposed by LRSA and agreed upon by American Cyanamid. These limitations, along with the 6000 gallon/hour maximum pumping rate will protect LRSA from treatment upsets. To assure compliance with the mass loading limitations, the plant will analyze daily TOC before beginning the discharge. Total gallons of wastewater to be pumped for the day will be based upon this initial load determination. TOC and COD analyses will be performed daily on a composite sample collected for the discharge. Based upon the TOC, COD and the ratio of the two parameters, the Warners plant will monitor its discharge for any changes in wastewater characteristics.

SULFIDES

Cyanamid and the Authority have performed extensive studies of sulfides in the company's wastewater during the past two years. Both Cyanamid and LRSA recognize that the existing method for sulfides is subject to severe interferences and not applicable to the company's discharge. Ambient air monitoring studies at the Authority have shown worker exposure to hydrogen sulfide is very low, and safety concerns related to sulfides have been addressed. Cyanamid discharges wastewater to LRSA through a dedicated pipeline, owned and maintained by the company. The issue of sulfide related corrosion is, therefore, a burden borne by Cyanamid. As the Authority recommended, Cyanamid will contract with an independent engineering consulting firm mutually acceptable to Cyanamid and the Authority to identify an appropriate analytical method for sulfides and a limitation which addresses the Authority's interests. Study results will be submitted within one year of permit issuance.

OIL & GREASE

Cyanamid continues to study the two methods for Oil & Grease analysis (EPA Methods 418.1 and 413.1). Constituent characterizations for the extractable components in each of these methods is being performed by GC/MS and within our own laboratory by the plant's quality control methods. As we have demonstrated, the Gravimetric Oil & Grease method is subject to extensive interferences from constituents extractable in Freon, including water soluble and biodegradable components. Cyanamid proposes to continue our studies of the Oil & Grease methodology and work toward developing appropriate limits for this parameter.

Name of Qualified Professional: John DiPalma, P.E.
(typewritten)

3-15-89
Date

John C DiPalma PE
Signature

(Seal)

GE 26316
Registration Number

Note: A Qualified Professional is defined as either a New Jersey licensed Professional Engineer or a New Jersey Registered Chemist who is certified in all the analyses included in this report.

PRELIMINARY ASSESSMENT

American Cyanamid Landfill

LINDEN CITY, UNION COUNTY

EPA ID No.: NJD981178049



New Jersey Department of Environmental Protection
Division of Hazardous Waste Management
Bureau of Planning and Assessment

955790016

BBC000008

AMERICAN CYANAMID LANDFILL
WOOD AVENUE
LINDEN CITY, UNION COUNTY, NEW JERSEY
EPA ID NO. NJD981178049

GENERAL INFORMATION AND SITE HISTORY

American Cyanamid Landfill is located on Block 457, Lots 17A and 20A in Linden City, Union County. The landfill is approximately 10 acres in size and is currently inactive. The site is bound to the north and east by Piles Creek, a tributary of the Arthur Kill. West of the site is an oil and gasoline storage tank farm owned by Exxon Oil Company and to the south is a warehouse facility owned by American Cyanamid. Land use in the vicinity of the site is developed for industrial purposes. The estimated population within 1 mile of the site is less than 5,000. The population within a 4-mile radius of the site is greater than 200,000.

American Cyanamid purchased the property in the early 1940s and started disposing of bulky dry hazardous wastes, dry nonhazardous chemicals, industrial wastes and liquid chemical wastes in the landfill in 1948. The landfill was closed in 1980 in accordance with a NJDEP approved closure plan. The closure consisted of installing a clay cap which was covered with top soil and seeded. In addition, a clay wall was installed around the landfill, however the landfill is unlined.

At present the American Cyanamid Landfill is no longer monitored by the NJDEP, Division of Water Resources (DWR) as it falls under the Vi-Concrete determination of 1989. The Vi-Concrete decision invalidated all NJPDES permits and monitoring requirements for sanitary landfills in New Jersey which closed prior to January 1, 1982.

SITE OPERATIONS OF CONCERN

The American Cyanamid Landfill received its waste from the American Cyanamid Warners Plant in Linden. The Warners Plant was the second oldest manufacturing plant in the American Cyanamid Company and was also the location of Cyanamid's first research laboratory where many of the company's products were developed. The plant produced a variety of organic and inorganic chemicals which included sulfuric acid, acrylamide, polyacrylamide, water and wastewater treatment chemicals, paper and fabric treatment chemicals, mining and ore production chemicals, malathion and surfactants. Although the Warners plant is still active, the exact amount of chemical waste buried at the Linden landfill is unknown.

A review of historical records of the Linden landfill has identified several spills or releases of hazardous substances. During a site visit by the NJDEP, Division of Solid Waste Management on October 23, 1975, 55-gallon drums were noted to be imbedded within the perimeter of the landfill at several locations. A very strong pungent odor was associated with the drums and stained sand was observed. A small spill or seepage was also observed in the meadow, killing meadow vegetation and imparting an ink-like, bluish hue to the marsh.

On June 19, 1987 during a NJDEP, Division of Hazardous Waste Management (DHWM) site inspection, conduits which extended from the landfill to a drainage ditch and the creek were observed. At the base of one such conduit on the western side of the landfill, a milky white discoloration

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was observed in the drainage ditch. Malathion was suspected to be the source of the contaminant, as malathion was a product manufactured at the Warners Plant and was known to be deposited in the landfill. Malathion also takes on a milky white discoloration when it comes in contact with water. During a Pre-Sampling Assessment conducted by the NJDEP, Division of Hazardous Waste Management (DHWM), Bureau of Planning and Assessment (BPA) on April 9, 1991, no surface drainage was observed and no stressed or dead vegetation was noted in areas surrounding landfill.

GROUNDWATER ROUTE

Geologically, the landfill is underlain by Pleistocene and recent age unconsolidated materials which overlie the Triassic age Brunswick Formation. The unconsolidated materials at the site generally consist of three stratigraphic units: an upper silty sand, an organic-rich meadow mat and a glacial till layer. The soil materials of the upper silty sand layer are generally a very fine to fine sand with variable percentages of silts and clays. The total thickness of the silty sand unit ranges from 4 to 8 feet. Directly underlying the upper silty sand unit is a meadow mat layer, a predominantly organic layer which ranges in thickness from 4 to 7 feet. The meadow mat is densely fibrous, highly porous, vegetative material with a variable percentage of fine sands, silts, clays and fine gravels (shale fragments) found within its structure. The glacial till layer is encountered directly under the meadow mat layer and ranges in thickness from 13 to 16 feet. The till layer is composed of a poorly sorted, admixture of clay, silt, sand and fine gravels.

The bedrock underlying the area is the Triassic age Brunswick Formation. This formation consists primarily of brown, reddish-brown and gray shale, sandy shale and sandstone. The thickness of the formation is not known but it is believed to be greater than 6,000 feet. The Brunswick Formation is highly fractured and is considered a highly productive aquifer with the most productive water bearing zone lying between 200 and 400 feet below grade.

Groundwater beneath the site exists in the voids of the unconsolidated Quaternary glacial sediments and in the joints and fractures of the Brunswick Formation. Groundwater beneath the site flows into Piles Creek in a southeast and north direction. The depth to the water table ranges approximately 2 to 8 feet below the land surface. Groundwater use in the vicinity of the site is limited to a few industrial wells screened at depths of 26 to 106 feet.

The Linden landfill maintains eight monitoring wells on site. These wells have a depth range of 5 to 26 feet and tap the unconsolidated Quaternary glacial sediments. All wells are located either upgradient or downgradient of the landfill, none are located within the landfill. The wells have been sampled throughout the years since 1986 by the NJDEP, Division of Water Resources (DWR) and Environmental Resources Management of West Chester, Pennsylvania. Results have indicated volatile organic, heavy metal and pesticide contamination. Contaminants included malathion (ND to 41 parts per billion [ppb]), mercury (ND to 7 ppb), arsenic (ND to 3,050 ppb), phenol (ND to 100,000 ppb), benzene (ND to 47 ppb), ethylbenzene (ND to 387 ppb), 2-4-dimethylphenol (ND to 48,000 ppb), acrolein (ND to 160 ppb) and toluene (ND to 594 ppb).

On June 10, 1985 American Cyanamid was issued a NJPDES permit No. 0056227 for groundwater discharge. Actual discharge is leachate from the landfill. The permit required American Cyanamid to test all monitoring wells on site on a periodic basis. However, on April 19, 1989 American Cyanamid's NJPDES permit was determined to be invalid under the Vi-Concrete decision since the landfill closed prior to January 1, 1982. Although no longer required, American Cyanamid continues to quarterly monitor all monitoring wells located at the Linden landfill site.

Groundwater within 4 miles of the landfill is used for public and industrial water supplies. Only one municipality maintains wells tapping the Brunswick Formation within 4 miles of the site. The City of Rahway maintains one well approximately 3.5 miles west of the site, which services approximately 38,000 residents. Contamination of the well is unlikely since groundwater flow is into Piles Creek and the well is located approximately 3.5 miles upgradient from the site.

There are no private water supply wells within 4 miles of the site. However, there are numerous industrial water supply wells within 4 miles of the site, which tap the Brunswick Formation.

SURFACE WATER ROUTE

The Linden landfill is located adjacent to Piles Creek a tributary of the Arthur Kill. Piles Creek empties into the Arthur Kill approximately 0.1 stream mile east of the site. The Arthur Kill then flows into Raritan Bay approximately 10 stream miles south of the site or into Newark Bay 2.5 stream miles north of the site depending on tidal influence. Piles Creek is classified as a saline estuary. There are no drinking water or industrial surface water intakes within 15 miles of the site and surface water is not used for irrigation purposes.

The potential for surface water contamination exists through groundwater movement and leachate from the landfill. Stream samples collected by Environmental Resources Management in 1986 and 1987 revealed contamination above background.

Linden landfill is located on a estuarine intertidal emergent wetland. The peregrine falcon a state and federal endangered species could have a nesting area within 1 mile of the site.

AIR ROUTE

American Cyanamid held no air pollution certificates for the Linden landfill and were not monitored through the NJDEP, Division of Environmental Quality in the past. Currently, a potential for air contamination does not exist since the landfill is inactive and covered with a clay cap. There are no vents located within the landfill.

SOIL

No soil samples have been collected at the landfill. However, a potential for soil contamination exists as documentation indicates bulky dry hazardous and liquid chemical wastes were buried at the landfill. During a Pre-Sampling Assessment conducted by the NJDEP, DHWM, BPA on April 9, 1991, soil gas readings were collected along the perimeter of the landfill using an Organic Vapor Analyzer (OVA) and a Hnu photoionization detector. No readings above background were noted.

DIRECT CONTACT

There have been no reported incidents of direct contact with hazardous waste or materials on site. Vehicular access to site is restricted by fences and locked gates. However, direct contact is possible since there is a contamination potential of nearby streams which maybe used for recreation, due to storm and groundwater movement.

FIRE AND EXPLOSION

There have been no reported fires or explosions at the Linden landfill. However, a potential exists as hazardous liquid and dry chemicals were known to be buried at the landfill and the landfill is not vented.

ADDITIONAL CONSIDERATIONS

Damage to flora and fauna has been observed in areas surrounding the eastern and western border of the landfill where spills or seepage from the landfill has killed meadow vegetation and caused an ink-like bluish hue in the marsh. Contamination of the food chain may occur as some of the contaminants detected on site are bioaccumulative. ✓

ENFORCEMENT ACTIONS

On July 1, 1987 the NJDEP, Division of Solid Waste Management (DSWM) and American Cyanamid signed an Administrative Consent Order (ACO) whereby American Cyanamid agreed to comply with all provisions of the June 10, 1985 NJPDES permit which were not modified by the NJDEP and to complete and submit a hydrogeological study of the area surrounding the Linden landfill. This ACO was voided on April 19, 1989 when American Cyanamid's NJPDES permit became invalid. However, American Cyanamid continues to monitor all monitoring wells on site.

PRIORITY DESIGNATION

Although, no soil samples have been collected from the landfill, documentation indicates hazardous materials were buried at the site. This site is designated a high environmental concern due to materials buried on site and observed groundwater and leachate contamination.

RECOMMENDATIONS/CONCLUSIONS

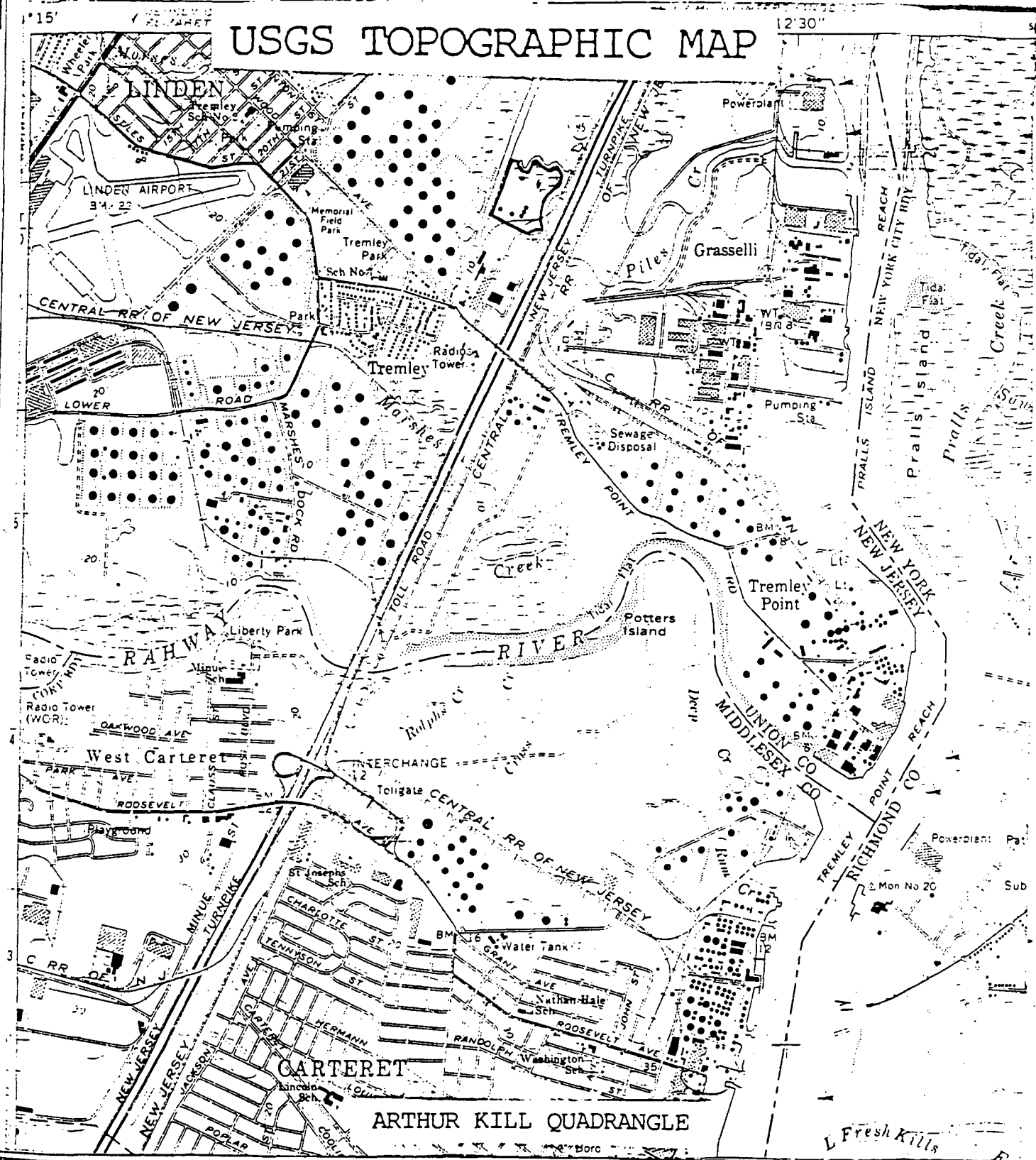
American Cyanamid's Linden landfill was closed in 1980 in accordance with an NJDEP approved closure plan. American Cyanamid continues to monitor groundwater contamination although no longer required since the landfill falls under the Vi-Concrete decision of 1989. Sampling of monitoring wells on site by NJDEP, DHWM, BPA is not warranted as there is sufficient groundwater data available. However, soil sediment, and surface water samples along the landfill's perimeter where surface water runoff points exist is recommended, due to observed past spills or seepage into the meadow along the landfill.

Submitted by:

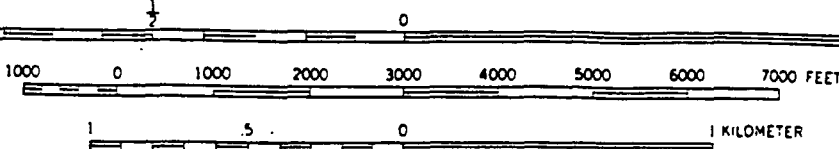
Hayder Camargo
HSMS IV
Bureau of Planning and Assessment
March 22, 1991

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USGS TOPOGRAPHIC MAP



SCALE 1:24000



CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

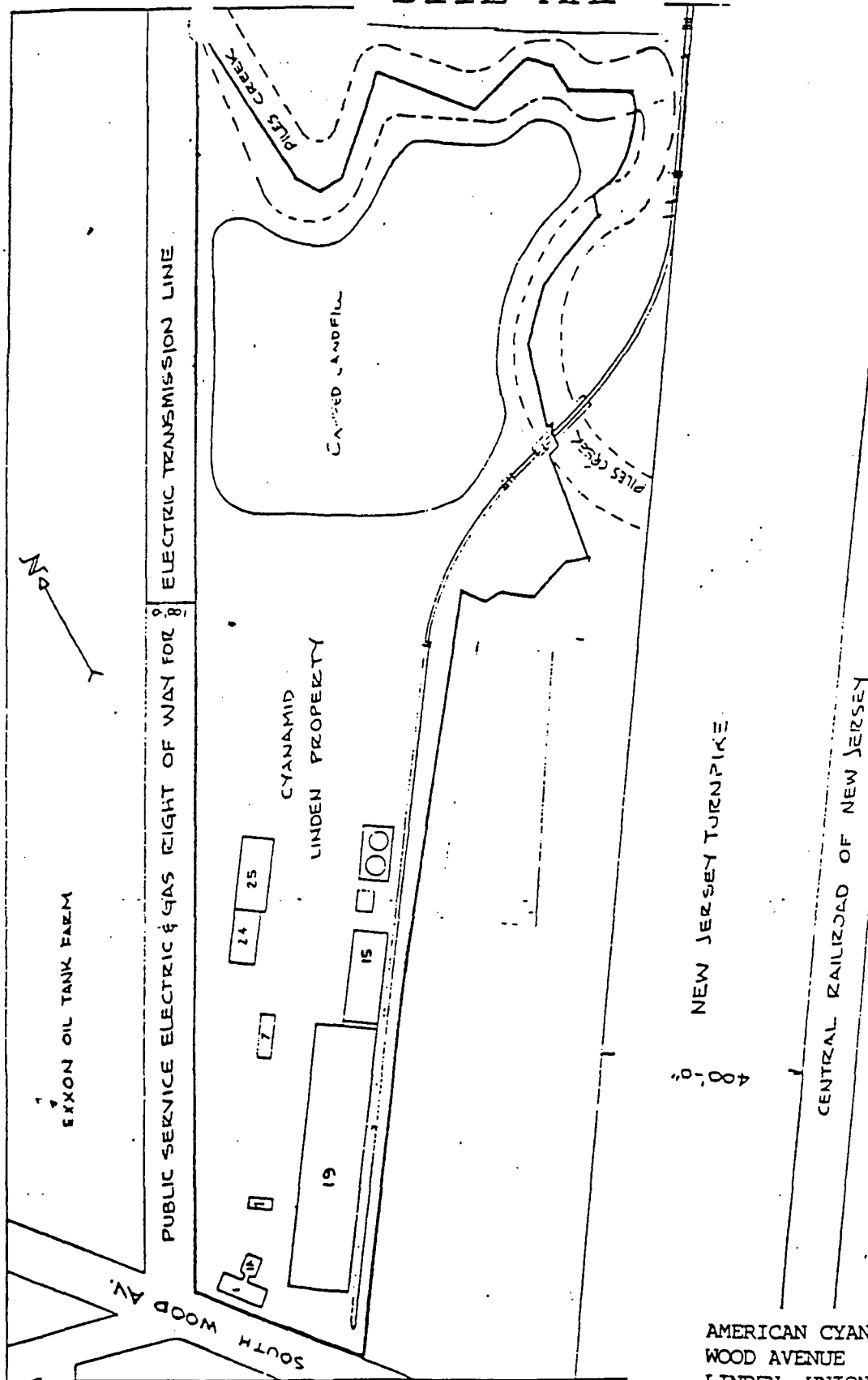
AMERICAN CYANAMID LANDFILL
WOOD AVENUE
LINDEN, UNION COUNTY

LATITUDE: 40-37-07
LONGITUDE: 74-13-22

955790021

MAP - 1

SITE MAP



AMERICAN CYANAMID LANDFILL
WOOD AVENUE
LINDEN, UNION COUNTY

LATITUDE: 40-37-07
LONGITUDE: 74-13-22

NO SCALE

955790022

MEMO

NEW JERSEY STATE DEPARTMENT

ENVIRONMENTAL PROTECTION

TO Ronald T. Corcory
FROM Kevin Gashlin DATE January 22, 1980
SUBJECT American Cyanamid Landfill*

*This memo is an update of conditions at the landfill.
See previous report dated January 3, 1980.

Inspection was accomplished on January 17, 1980, by John Berg, Marty Buys and myself. We were accompanied by Stuart Hathaway, manager of Environmental Science at Cyanamid. The purpose of this venture was to observe compliance with SWA regulations, specifically as they pertain to daily cover, leachate into Piles Creek, and monitoring well results for Malathion. The following is a summary of observed conditions and recommendations.

1. A cutback operation was in progress at the northern face of the site, parallel with Piles Creek. The heavy equipment operator was observed in a full face mask breathing from an air cylinder. The unearthed material is trucked to the southern end of the site and dumped. Although grading of this material is accomplished, the deposits have remained without application of daily cover. This is clearly a violation. An N.O.P. is strongly advised.
2. Empty drums were found in contact with Piles Creek at the eastern face of the site. Removal was requested on 1-7-80 but this request was not complied with. Again, this violation should be dealt with officially.
3. A problem of leachate into Piles Creek continues. Active seepage from the northern face has a black appearance at its entrance point to the creek. The leachate has a reduced organic odor and dispatates quickly as it moves downstream. My concern is based upon ongoing disruption of the site which is obviously introducing contaminants to exposure and may eventually enter the surface waters. Samples which have been retrieved have not been analyzed. Analysis is again requested.
4. Unearthed glass sample bottles are chronically observed. Malathion and unidentified powder are among materials exposed. Although collection of exposed chemicals has been attempted, it has not been effective. I therefore suggest that appropriate fines be imposed.

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ATTACHMENT ¹³⁴B-1

5. The malathion problem becomes quite evident as the wind dies down. The distinctive odor permeates the entire area and is irritating to mucous membranes. September 1979 monitoring well tests reveal between 0-30 ppb in both #1 and #2 wells. EPA water quality criteria lists acceptable input of malathion into aquatic environments as 0.1 ppb. Clearly, a potential hazard exists. I recommend a sampling program of Piles Creek be implemented immediately. December well tests unofficially show an increase in malathion content, though the quantitative results have not been sent to Frank Coolick.

In conclusion, I submit that American Cyanamid should be taken to task for the aforementioned omissions and negligence which prevails. The Marshland and creek which are integrated so closely to the landfill are important ecological pathways needing protection.


Kevin Gashlin

11b

955790024

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ATTACHMENT B-

John J. Tre: Chief

FROM: Dave Kaplan

SUBJECT: American Cyanamid Company, Linden, Union County

1982

1. The above-referenced facility has operated two landfills, one in Linden and one in Carteret. Both landfills are now closed. In addition, the Linden plant discharges its steam condensate into a number of "dry wells" around the plant. In a letter to Dr. Marwan Sadat, dated September 4, 1981, S.R. Hathaway, Manager of Environmental Services, stated "We do not believe that permits are required under the NJPDES regulations; but we would appreciate verification from the Department."
2. An inspection was made of the two landfills and the dry wells on January 21, 1982. Following is a synopsis of the available data and site observations:

Linden Landfill

Closed in 1979. Covers about 10 acres. Wastes include: bulky, dry, hazardous, dry non-hazardous chemical, industrial non-chemical, liquid chemical. Situated on a tidal marsh, underlain by silty clays and meadow mat. Adjacent to Piles Creek, tributary of the Rahway River. In industrial area with Exxon tank farm to the west. Ground-water depth is shallow (less than five feet), flow direction is north and east toward the creek. Clay dike surrounds landfill-keyed into the meadow mat. Clay covered. Four monitor wells — background 1/4 mile south, downgradient wells along NW, NE, and SE landfill corners. Background and one downgradient well (along SE perimeter) have been sampled quarterly for several years. The two wells along the NW and NE corner were installed on September 16, 17, 1982 and have not yet been sampled. Analyses of the two older wells indicate ground water degradation.

ATTACHMENT C-1

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Ground Water Quality Standards were exceeded in the wells for the following parameters: chloride, iron, ammonia, sodium, cyanide, MBAS, lead, sulfate, sodium, mercury.

Carteret Landfill

In operation from 1939-1973. Covers about 110 acres. Waste is a gray powder residue consisting of silica, aluminum oxide, and calcium carbonate only. On a tidal marsh underlain by silty clays and meadow mat. Adjacent to Rahway River and Arther Kill. In industrial area with tank farms and Cartaret Municipal Landfill nearby. Ground water depth is ^{SHALLOW - LESS THAN} 10 feet. No cover and no monitor wells. EP Toxicity Tests were run on representative samples. All metals were below RCRA limits. *HENCE, LEACHING IS NOT EXPECTED TO BE A PROBLEM.*

Dry wells

Approximately 500 steam condensate pipes, at various locations around the Linden plant, discharge steam into beds of gravel. The pipes are imbedded a maximum of $\frac{1}{4}$ - $\frac{1}{2}$ " into the gravel. Many are not in the gravel at all, these discharge directly to the air. An analysis indicates no contamination present in the steam discharges.

3., Conclusions and Recommendations

It appears the Linden landfill is degrading the ground waters and will need a NJPDES permit. To verify ground water degradation, the four monitor wells should be sampled six consecutive months for the standard Waste Management parameters. If it is found that the water quality in the three downgradient

ATTACHMENT C-2

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wells does not equal background quality (as measured in the off-site well), a NJPDES permit will be required.

The Carteret landfill contains ~~an~~ inert waste powders. This material is not degrading the ground water (as evidenced by the negative results of the EP Toxicity Tests) and a NJPDES permit should not be required.

The analysis of the steam condensate shows no contamination, ^{AND} A NJPDES should ~~therefore~~ not be required for the dry wells.

WOM32:clb

cc: Files (3)

ATTACHMENT Q-3

955790027

Q-3

Let's protect our earth



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT

John J. Trela, Ph.D., Acting Director
401 East State St.
CN 028
Trenton, N.J. 08625
609-633-1408

M E M O R A N D U M

JUL 27 1987

TO: ANTHONY CAVALIER, CHIEF
BUREAU OF FIELD OPERATIONS
METRO FIELD OFFICE

FROM: STEPHEN A. BORGIANINI, ACTING CHIEF
BUREAU OF PLANNING AND ASSESSMENT

SUBJECT: AMERICAN CYANAMID, LINDEN LANDFILL

In conjunction with a RCRA Facility Assessment, a site inspection was conducted at the American Cyanamid Warners Plant, Linden on June 19, 1987. One area observed during the course of this inspection was Cyanamid's closed landfill in Linden. This landfill covers an area of approximately ten (10) acres and was active until 1979 receiving production wastes from the Warners Plant. The landfill is situated on a tidal marsh and is adjacent to Piles Creek and an unnamed drainage ditch. A clay dike, which is keyed into the meadow mat, surrounds the landfill.

At the time of the inspection, conduits were observed which extended from the landfill, under the road and dike, to a discharge in the ditch and the creek. At the base of one such conduit on the western side of the landfill, a milky white discoloration was observed in the drainage ditch. As Malathion, a product manufactured at the Warners Plant and known to be deposited in this landfill, takes on a milky white discoloration when it comes in contact with water, it is recommended that an investigation of this discharge as well as these conduits be initiated.

If you have any questions regarding this recommendation, please contact Clare Sullivan of my staff at 609-633-2218.

CS:mz

c: Dave Shotwell, Chief, Bureau of Field Operations

955790028

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ATTACHMENT F-16

AMERICAN CYANAMID COMPANY
WARNERS PLANT
LINDEN, UNION COUNTY, NEW JERSEY
EPA ID# NJD002173144

American Cyanamid Warners Plant was established in 1916 on a swampy thirty two (32) acres located in the southeast corner of the City of Linden. The previous owner of this parcel, the Ammo-Phos Corporation had been in operation since the 1870's, and Cyanamid utilized existing buildings and operations. The facility is bounded to the east by the Arthur Kill, to the south by the Rahway River and to the north and west by Cities Services Company property. Land use within a one mile radius of the plant is predominantly industrial. The nearest residential development occurs approximately 3500 feet across the Arthur Kill in Staten Island, New York.

The Warners Plant is the second oldest manufacturing plant in the American Cyanamid Company and is also the location of Cyanamid's first research laboratory where many of the company's products were developed. The plant has produced a variety of organic and inorganic chemicals which include sulfuric acid, acrylamide, polyacrylamide, surfactants, water and wastewater treatment chemicals, paper and fabric treatment chemicals, mining and ore production chemicals and non persistent organophosphate insecticides. Current products are Malathion, surfactants and mining products. Processing operations take place as both continuous and batch operations.

No site specific information regarding the geology and direction of ground water flow could be found during the file search, however, geology of the area is characterized by fill to a depth of approximately ten (10) feet, and clay meadow mat in some areas, which are underlain by glacial till deposits consisting of layers and lenses of silt, sand, and clay. The bedrock of the Brunswick Formation is encountered at approximately twenty (20) feet. The water table at the Cyanamid plant is extremely high.

Hazardous wastes which are generated on-site are treated and/or stored in tanks and containers prior to shipment to authorized off site treatment, storage, and disposal facilities. There are five (5) solid waste management units at the Warners Plant including three (3) RCRA regulated units.

CONTAINER STORAGE AREAS

Containerized hazardous wastes are held for less than ninety (90) days at six (6) accumulation areas throughout the plant.

1. Wastes from the DEM/Surfactants and Job Shop Departments are accumulated north of Building 137.
2. Wastes from the Acid Center and Pesticides Department are accumulated east of Buildings 46 and 47.
3. Wastes from the Malathion Department are accumulated south of Building 132.

American Cyanamid Warners Plant owns and operates two (2) off site landfills (both of which are inactive at this time), and an offsite warehouse. These units are not subject to the RCRA corrective action program as they are not contiguous with the main facility property.

CARTERET LANDFILL

This is an inactive 110 acre landfill which is bordered on the north by the Rahway River, to the east by Deep Creek, and to the south by Carteret Municipal Landfill, and accepted dry industrial waste from 1939 to 1973. The landfill is located on a tidal marsh underlain by silty clays and meadow mat.

The ores and muds which were disposed of at this location were generated during the production of aluminum sulfate (Alum) and yellow prussiate of soda (YPS Sodium Ferrocyanide). This landfill is regulated by NJPDES permit number NJ0061611 and four (4) ground water monitoring wells. Toxicological studies were conducted on these muds in 1981. Animal dermal toxicity and dermal irritation studies indicated the muds to be non-toxic. Complex cyanides (as high as 3500 ppm) were detected in shallow core samples confirming that YPS was entrained in the muds. Surface materials did contain trace levels of free cyanide.

The total quantity of material that was disposed of at this location is unknown. However the impounds, which cover most of the 110 acre site, are estimated to be approximately six (6) feet in depth.

LINDEN LANDFILL

This landfill covers an area of approximately ten (10) acres and was active until 1979 accepting bulky dry hazardous wastes, dry non-hazardous chemicals, industrial wastes, and liquid chemical wastes. The landfill is situated on a tidal marsh and is underlain by silty clays and meadow mat and is adjacent to Piles Creek, which is a tributary to the Rahway River. A clay dike, which is keyed into the meadow mat, surrounds the landfill.

American Cyanamid operates and maintains eight (8) monitoring wells around this landfill. (NJPDES permit #0056227). Analysis of these wells indicates ground water contamination with organics, inorganics, heavy metals, and pesticides.

Inspections conducted by NJDEP from 1975 to 1980 indicated eroded fill materials, ground staining, leaching and stressed vegetation. Also noted during these inspections was leachate emanating from the landfill and flowing into Piles Creek, as well as leachate plumes in the creek.

During the June 1987 visual site inspection by NJDEP/BPA, areas of stressed vegetation was observed. Also noted were several conduits leading from the landfill and going under a road and slurry wall to a discharge into a drainage ditch and Piles Creek. At the base of one such conduit on the western side of the landfill, a milky white discoloration was observed in the drainage ditch. A referral has been made to NJDEP, Bureau of Field Operations, Metro Field Office.

LINDEN WAREHOUSE

The Warners Plant operates a warehouse which is located approximately 1.5 miles west of the plant. Operations which take place at the warehouse include the storage and repackaging of some of the products manufactured at the Warners Plant. Administratively, the warehouse is under the operational control of the

File No. 300-32

HYDROGEOLOGICAL ASSESSMENT OF
THE LINDEN LANDFILL

29 December 1987

Prepared For:

American Cyanamid
Linden, New Jersey

Prepared By:

Environmental Resources Management, Inc.
999 West Chester Pike
West Chester, Pennsylvania 19382

955790031



ATTACHMENT 2

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EXECUTIVE SUMMARY

This report presents a review of hydrogeologic and water quality conditions in the vicinity of the Linden Landfill. It is based on the results of a quarterly monitoring program conducted from July, 1986 through May, 1987 to examine the impact of the landfill on nearby surface and ground waters. The report has been prepared in fulfillment of the requirements of an Administrative Consent Order (ACO) executed by New Jersey Department of Environmental Protection (NJDEP) and American Cyanamid.

In addition to reviewing the results of the monitoring program from a technical perspective, the report evaluates; a) whether sufficient data are available to develop appropriate ground water quality standards at this time and, b) whether there is a need for corrective action at the landfill.

The Linden Landfill is an inactive, 10-acre facility, located in an industrialized section of Linden, N.J., north of Tremley Point Road and immediately west of Piles Creek and the N.J. Turnpike. The facility began operation in 1948 and was closed in 1980 in accordance with a NJDEP-approved closure plan.

Geologically, the landfill is underlain by Pleistocene and Recent age unconsolidated materials which overlie the Triassic age Brunswick Formation. The unconsolidated materials at the site generally consist of three stratigraphic units: an upper silty sand, and organic-rich meadow mat, and glacial till.

Eight new monitoring wells were installed; four screened in the upper silty sand above the meadow mat, and four screened in the glacial till below the meadow mat. Water quality samples were collected from the wells and from two stations in Piles Creek on a quarterly basis. Hydraulic conductivity testing was conducted using Shelby tube samples for definition of vertical conductivity and a slug test for definition of horizontal conductivity. Water levels were recorded during all surveys. During one of the surveys, water levels were recorded continuously at all wells and in the stream over two tidal cycles.

The shallow ground water system discharges radially from the landfill to the north and east, toward Piles Creek. Radial flow is also evident at the southern portion of the landfill toward monitoring well 1S. As a result, this well, which was initially intended to be a background monitoring well, is not consistently upgradient from the landfill. Measured hydraulic gradients at

the site also suggest a downward component of flow for the shallow system.

The predominant directions of ground water flow in the deeper, glacial till system are south/southeast toward the lower reaches of Piles Creek and south/southwest away from the upper reaches of the creek. Monitoring well 4D, which was initially considered to be a downgradient well, appears to represent upgradient background conditions, based on piezometric and water quality relationships.

Ground water elevation readings indicate that all wells are affected, to some extent, by the tidal stage in Piles Creek. The data collected during this program indicate a hydraulic connection between the shallow and deep ground water systems and between both units and Piles Creek.

As expected, the shallow ground water contains elevated levels of certain landfill-related parameters, particularly COD, TOC, ammonia, TKN, and to a lesser extent total cyanide, phenol, trace elements and organic compounds. Ground water in the glacial till exhibits much lower levels of organic indicators, trace elements, and total cyanide than the shallow ground water. Trace organic compounds were consistently undetectable in all deep wells.

There is no discernable impact of the landfill or local ground waters on the water quality in Piles Creek. The creek contains naturally elevated levels of total dissolved solids and salinity-related parameters, which is characteristic of estuarine waters. The concentrations of some trace elements, e.g., manganese, exceed the levels typically found in seawater. The causes of these elevations are unclear and may be due to upstream sources, turnpike runoff, and/or the release of trace elements from nearby wetlands.

According to the Administrative Consent Order (ACO) between NJDEP and American Cyanamid, NJDEP intends to review the routine monitoring data, in conjunction with a list of numerical ground water standards, to evaluate the impact of the facility on ground water quality. The numerical standards contained in the ACO correspond to a GW-2 ground water classification scheme under NJAC 7:9-6.1 et seq. While it may be appropriate to use some numerical criteria for reference purposes, the results of this program indicate that reference standards based on a GW-2 classification are not applicable to the ground water of the glacial till, since background levels of TDS in this unit exceed the 500 mg/l specified for the GW-2 classification. Reference standards based on the GW-3 classification appear to be more appropriate to the glacial till ground water.

The results of this program indicate that the deeper ground water consistently meets most of the GW-3 standards. Exceptions are noted for total cyanide, a primary standard, and for the secondary standards, ammonia, manganese, TDS, and salinity-related parameters. Considerable uncertainty exists over the validity of the total cyanide data, because of possible interferences and significant differences between the results of alternate methods.

Nevertheless, all reported values of total cyanide are consistently below recent AADI and Health Advisory levels established by USEPA. No potential threat to human health is therefore indicated, even if the glacial till ground water were to be used as a potable water supply.

The remaining parameters exceeding GW-3 reference standards are not health-based criteria but are related to aesthetic concerns such as taste, color and odor in water supplies. This is believed to be of little concern, since it is highly unlikely that the glacial till ground water in the area will ever be used as a source of potable water, due to the high levels of naturally-occurring salinity and the ready availability of alternate supplies.

Based on the results of this program it may be concluded that the impact of the Linden Landfill on local ground and surface waters is negligible. No corrective action appears warranted at this time.

With respect to the development of possible future ground water protection standards for the landfill it is noted that NJDEP is currently considering substantial revisions to the State Ground Water Quality Standards including policies, classification system, use designations, and numerical criteria. Pending the development and promulgation of the revised standards, it is suggested that the derivation of site-specific standards for the Linden Landfill be deferred. In the interim, routine monitoring can be continued to confirm the absence of adverse health or environmental impacts, while resolving current analytical uncertainties and improving the data base from which standards may ultimately be developed.

SECTION 1
INTRODUCTION

This report presents a review of hydrogeologic and water quality conditions in the vicinity of the Linden Landfill. It is based on the results of a quarterly monitoring program conducted from July, 1986 through May, 1987 which examined the impact of the landfill on nearby surface and ground waters. Monitoring results will be evaluated from the perspectives of developing appropriate ground water standards and evaluating the need for corrective action at the facility.

1.1 Regulatory Background

On June 10, 1985, the New Jersey Department of Environmental Protection (NJDEP) issued a New Jersey Pollutant Discharge Elimination System/Discharge to Ground Water permit No. NJ0056227 ("NJPDES/DGW permit") to the American Cyanamid Company ("American Cyanamid") to monitor ground-water quality at the closed American Cyanamid sanitary landfill (the Linden Landfill). The NJPDES/DGW permit has an effective date of July 15, 1985. On July 11, 1985, NJDEP received a letter from American Cyanamid dated July 10, 1985, requesting an adjudicatory hearing to contest certain conditions in the NJPDES/DGW permit.

On April 14, 1986, July 14, 1986, February 9, 1987 and April 13, 1987, pursuant to N.J.A.C. 1:1-5.4, American Cyanamid met with NJDEP in an attempt to resolve the contested conditions. American Cyanamid presented a proposed scope of work for a hydrogeological assessment program to better clarify hydrogeological conditions in the landfill area. NJDEP approved the Work Plan and the present document presents the findings of that study.

Subsequently, in July 1987, NJDEP and American Cyanamid entered into an Administrative Consent Order to continue monitoring at the Linden Landfill, by which DEP agreed to modify certain provisions of the NJPDES permit. The ACO also incorporated a provision requiring the completion and submittal of the results of the present hydrogeological study. This report has been prepared in fulfillment of those requirements.

1.2 Site Description

The Linden Landfill is located immediately to the west of Piles Creek and covers approximately 10 acres (Figure 1-1). It received waste between 1948 and 1980 and was closed in that year in accordance with a NJDEP-approved closure plan. The closure consisted of installing a clay cap which was covered with top soil and seeded. In addition a clay wall was installed around the landfill (Figure 1-2). This wall was keyed into the meadow mat or hard clay along the western and southern boundaries of the landfill. Along a portion of the northern and eastern boundaries of the landfill, the clay wall was not as deep as the meadow mat layer.

1.3 Objectives of Present Study

Technical objectives of this study are to evaluate if the Linden Landfill is adversely affecting a) Piles Creek and b) ground water below the meadow mat. From a regulatory perspective the study examines appropriate ground water standards and considers the need for corrective action at the facility. The NJPDES permit originally issued to Cyanamid contained ground water based effluent limitations which were numerically equivalent to GW2 standards. The appropriateness of incorporating GW2 standards was considered questionable by Cyanamid at that time since the local ground water is known to be impacted by higher levels of total dissolved solids (TDS) than may be associated with intrusion of TDS from Piles Creek into the local ground water.

The results of the current hydrogeological study as well as information available to the Department are reviewed to determine whether corrective action will be required. An evaluation of the need for corrective action is related to the definition of appropriate ground water standards. The results of the study will be examined to consider if GW2 standards are appropriate for the environs of the Linden Landfill and if alternate ground water standards can be developed using available data. Relevant regulations affecting the development and modification of ground water standards and effluent limitations are contained in NJAC 7:14A-6.15(d) and NJAC 7:9-6.9.

A review of information from previously existing wells around the landfill revealed that there were a number of technical uncertainties related to hydrogeological conditions. Specifically, the following issues are examined in this program:

- What are background concentrations above and below the meadow mat?
- Is the effect of the landfill localized to the zone above the meadow mat?

Figure 1-1
Location of Linden Landfill
Union County, New Jersey

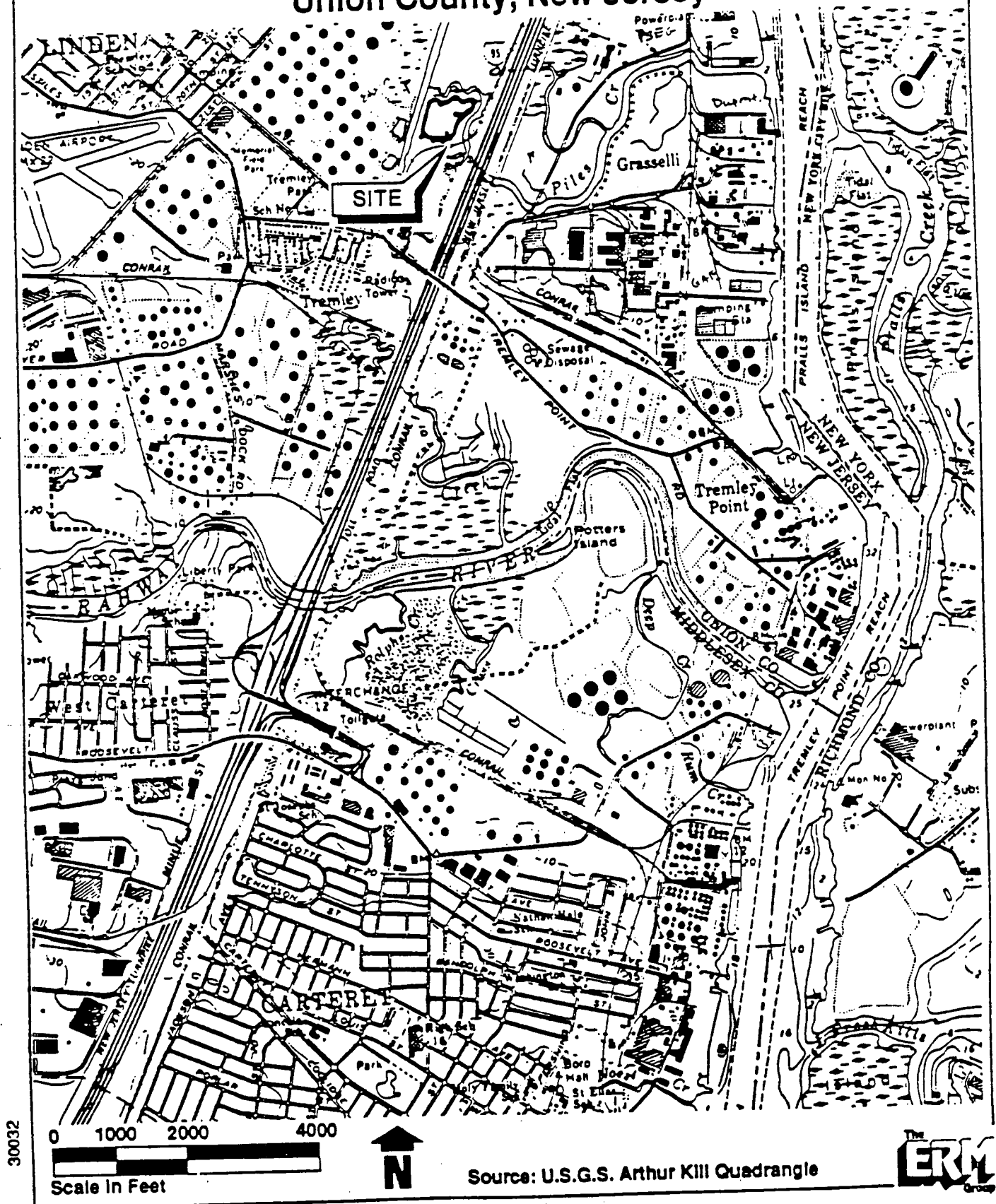
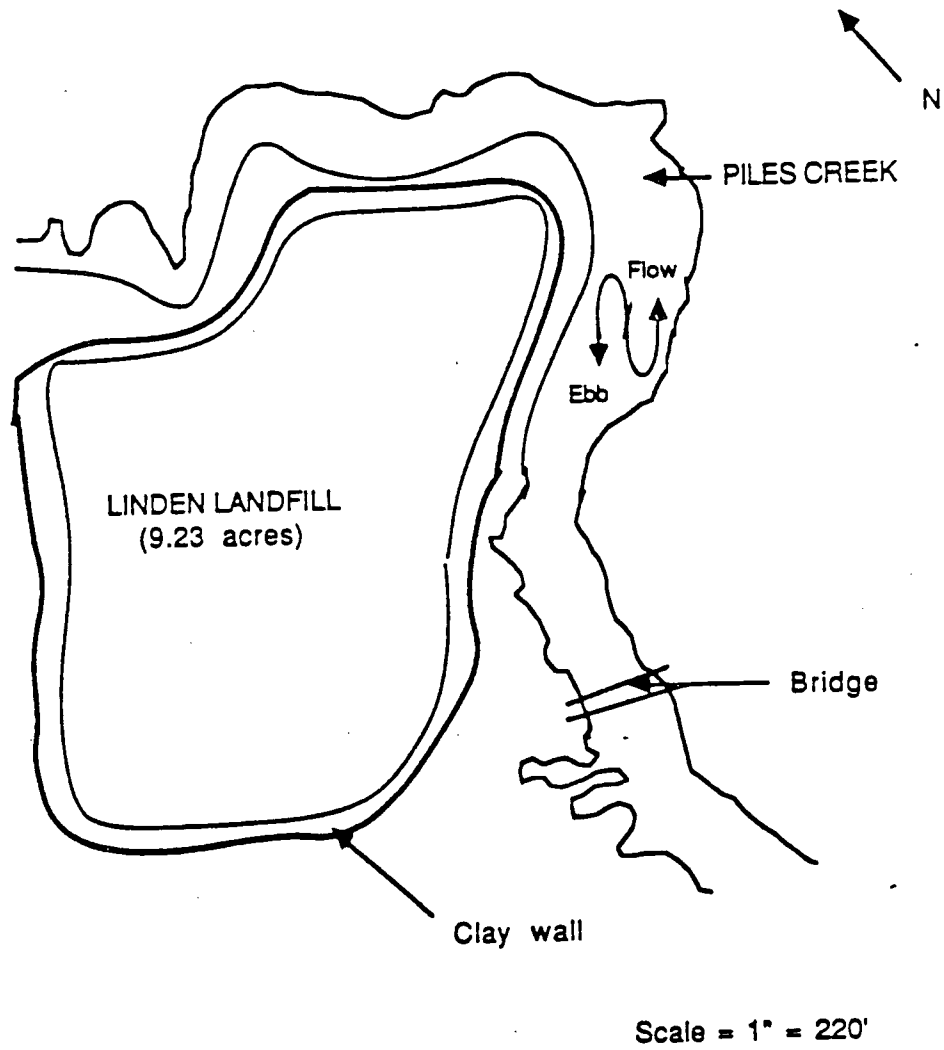


FIGURE 1-2
LINDEN LANDFILL



- What is the effect of tidal influence on hydrogéology and water quality?
- What is the impact of tidal influence on the utility of conventional indicators of contamination?
- What is the upstream surface water background quality?

1-5

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ATTACHMENT A-11

TABLE 4-3
LABORATORY ANALYSES RESULTS: VOLATILE ORGANIC COMPOUNDS / PESTICIDES
LINDEN LANDFILL, NJ.
 (All results reported in ug/L. ND = none detected. BMDL = below minimum detection limits.)

Sample Location	Date Sampled	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-fluoromethane	1,1,1-Trichloro-ethane	Pesticides
1S	7/17/86 Q	ND	ND	ND	ND	ND	ND	ND
	10/23/86 Q	BMDL	ND	4.8 (B)	ND	ND	ND	ND
	1/28/87 Q	ND	ND	ND	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
1D	7/17/1986 Q	21	ND	113 (B)	ND	12.8 (B)	ND	ND
	10/23/1986 Q	ND	ND	ND	ND	ND	ND	ND
	1/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
2S	7/17/86 Q	ND	ND	218 (B)	ND	BMDL (B)	ND	ND
	10/23/86 Q	BMDL	BMDL	19.3 (B)	ND	ND	ND	ND
	1/28/87 Q	4.8 (B)	ND	3.2 (B)	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	8.86 (B)	ND	ND	ND	ND
2D	7/17/1986 Q	BMDL (B)	ND	207 (B)	ND	BMDL (B)	8.0	ND
	10/23/1986 Q	ND	ND	19.2 (B)	ND	ND	ND	ND
	1/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
3S	7/17/86 Q	15.8	31.8	37.3 (B)	47.3	ND	ND	ND
	10/23/86 Q	18.7	46.5	26.2 (B)	71.3	ND	ND	ND
	1/28/87 Q	30.4	102	17.5 (B)	139	ND	ND	ND
	5/28/1987 Q	20.2	77.9	20.8 (B)	120	ND	ND	ND
3D	7/17/1986 Q	21.4	ND	ND	ND	ND	ND	ND
	10/23/1986 Q	ND	ND	ND	ND	ND	ND	ND
	1/28/1987 Q	ND	ND	BMDL (B)	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
4S	7/17/86 Q	26.1	BMDL	8.9 (B)	27.9	ND	ND	ND
	10/23/86 Q	33.5	BMDL	20.4 (B)	34.8	ND	ND	ND
	1/28/87 Q	46.9	9.2	ND	69.3	ND	ND	ND
	5/28/1987 Q	39.2	10.5	7.85 (B)	63.1	ND	ND	ND
4D	7/17/86 Q	ND	ND	10.2 (B)	BMDL	ND	ND	ND
	10/23/86 Q	ND	ND	ND	ND	ND	ND	ND
	1/28/87 Q	ND	ND	4.0 (B)	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
UPSTREAM	7/17/86 Q	ND	ND	126 (B)	ND	ND	ND	ND
	10/23/86 Q	ND	ND	32.9 (B)	ND	ND	ND	ND
	1/28/87 Q	ND	ND	BMDL (B)	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
DOWNSTREAM	7/17/86 Q	ND	ND	32.9 (B)	ND	ND	ND	ND
	10/23/86 Q	ND	ND	20.8 (B)	ND	ND	ND	ND
	1/28/87 Q	ND	ND	22.4 (B)	BMDL (B)	ND	ND	ND
	5/28/87	ND	ND	ND	ND	ND	ND	ND

Q-All of the results for this date have undergone a quality assurance review.

Qualifier Codes:

(B) - This result is of questionable qualitative significance since this compound was also detected in a blank(s) at a similar level.

955790042

ATTACHMENT

APPROVED FOR
RELEASE BY

QUALITY ASSURANCE

Rocky U. Jue 9/8/87
QA/QC-MANAGER DATE

TABLE
LABORATORY ANALYSES RESULTS: WET CHEMISTRY
LINDEN LANDFILL, NJ
(All results are reported in mg/L. ND = none detected. IND = indeterminate. BMDL = below method detection limits.)
(Blank = parameter not tested.)

Sample Location	Date Sampled	Depth to Water (ft.)	Lab*	NO3	Phenol	Total Cyanide	Total** Cyanide	Free Cyanide	TOC	NH3-N	CO2	TKN	SQL-B
18	7/17/86	8.08	E	<1	IND	0.08			8.1	8.8	120	18	14
	10/23/86	7.7	L	ND	ND	ND		0.077	8.8	4.4	123	15	ND
	1/28/87	4.28	L	ND	0.008	ND	<0.05	ND	8.7	ND	82	7	ND
	5/28/87	4.98	L	ND	0.013	ND	<0.02	0.01	7.3	0.8	38	3	ND
1D	7/17/86	8.43	E	<1	0.21	<0.028			18.8	4.4	41	8.8	<0.8
	10/23/86	8.65	L	ND	ND	ND		ND	8.1	3.4	276	7	ND
	1/28/87	6.58	L	ND	0.06	ND	<0.05	0.009	8.6	8	304	8	ND
	5/28/87	6.78	L	ND	0.018	ND	<0.02	ND	12	8	384	8	ND
28	7/17/86	2.2	E	<1	IND	<0.028			76.8	230	1700	470	330
	10/23/86	3.33	L	ND	0.033	0.038		0.288	23	172	862	220	ND
	1/28/87	1.8	L	ND	ND	0.04	0.007	0.128	17	180	1230	230	310
	5/28/87	2.34	L	10	0.17	1.0	<0.02	0.048	38	140	1380	180	238
2D	7/17/86	2.48	E	<1	0.28	0.27			14.4	4.8	270	18	<8
	10/23/86	4.4	L	ND	0.7	0.014		0.134	12	8	388	12	8
	1/28/87	2.81	L	ND	0.3	0.013	0.009	0.177	12	7	408	10	4
	5/28/87	3.08	L	ND	0.098	0.38	<0.02	0.183	14	7	818	10	13
38	7/17/86	3.38	E	8.83	148	IND			3370	700	22000	7700	380
	10/23/86	4.1	L	ND	78	8.8		0.187	8300	888	22000	3080	488
	1/28/87	2.44	L	ND	72	20	0.1	0.23	4800	813	18800	2200	183
	5/28/87	4.2	L	28	118	38	8.78	3.7 J	4400	848	28200	3880	880
3D	7/17/86	3.83	E	<1	IND	0.27			10.8	3.4	220	8.8	<0.8
	10/23/86	4.83	L	ND	0.038	0.081		0.182	4.1	2	292	8	ND
	1/28/87	3.38	L	ND	0.07	0.05	0.023	0.271	8.3	3.2	342	13	ND
	5/28/87	4.22	L	ND	ND	0.52	<0.02	0.288	3.3	2.8	384	4	ND
48	7/17/86	2.18	E	<1	2.02	IND			380	230	1800	880	710
	10/23/86	3.3	L	ND	8.8	0.128		3.71	330	188	2000	230	420
	1/28/87	1.77	L	ND	4	2.3	0.558	4.88	280	180	2010	230	810
	5/28/87	3.08	L	24	3.3	10	0.04	3.8	380	180	2080	178	810
4D	7/17/86	3.12	E	1.89	<0.8	<0.023			4.8	0.84	81	11	0.7
	10/23/86	4.88	L	0.8	0.081	ND		0.018	3.7	ND	80	2	ND
	1/28/87	2.58	L	ND	0.02	ND	0.008	0.013	1.8	ND	38	8	ND
	5/28/87	3.32	L	2	0.008	ND	<0.02	ND	2.8	0.2	18	4	ND
UPSTREAM	7/17/86	---	E	0.18	IND	<0.028			11.8	0.88	830	8.8	0.21
	10/23/86	---	L	ND	0.008	0.052		0.008	3.2	2.4	848	3	ND
	1/28/87	---	L	ND	0.47	0.038	0.007	ND	8.1	ND	402	3	ND
	5/28/87	---	L	ND	0.04	0.07	0.03	0.032 J	18	0.4	712	10	ND
DOWNSTREAM	7/17/86	---	E	0.12	IND	<0.023			11.8	1.3	120	8.4	1.1
	10/23/86	---	L	ND	0.008	0.042		0.01	2.8	2.4	831	3	ND
	1/28/87	---	L	ND	0.14	0.107	0.028	0.028	4	4.8	843	8	ND
	5/28/87	---	L	ND	0.09	0.1	0.03	0.028 J	8.1	2.7	818	8	ND

* - Lab Abbreviations:

E - ETC Lab, NJ.

L - Lancaster Laboratories, Lancaster, PA.

Qualifier Codes

J - This result should be considered a quantitative estimate.

** - Total cyanide as analyzed by the Celsal and Bernard Method.

APPROVED FOR
RELEASE BY
QUALITY ASSURANCE

Paul J. O'Neil 8/6/87

ATTACHMENT A-55

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TABLE 4-3
LABORATORY ANALYSES RESULTS: VOLATILE ORGANIC COMPOUNDS / PESTICIDES
LINDEN LANDFILL, NJ.
(All results reported in ug/l. ND = none detected. BMDL = below minimum detection limits.)

Sample Location	Date Sampled	Benzene	Ethyl-benzene	Methylene Chloride	Toluene	Trichloro-fluoromethane	1,1,1-Trichloro-ethane	Pesticides
1S	7/17/86 Q	ND	ND	ND	ND	ND	ND	ND
	10/23/86 Q	BMDL	ND	4.8 (B)	ND	ND	ND	ND
	1/28/87 Q	ND	ND	ND	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
1D	7/17/1986 Q	21	ND	113 (B)	ND	12.8 (B)	ND	ND
	10/23/1986 Q	ND	ND	ND	ND	ND	ND	ND
	1/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
2S	7/17/86 Q	ND	ND	216 (B)	ND	BMDL (B)	ND	ND
	10/23/86 Q	BMDL	BMDL	19.3(B)	ND	ND	ND	ND
	1/28/87 Q	4.8 (B)	ND	3.2 (B)	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	8.86(B)	ND	ND	ND	ND
2D	7/17/1986 Q	BMDL (B)	ND	207 (B)	ND	BMDL (B)	8.0	ND
	10/23/1986 Q	ND	ND	19.2 (B)	ND	ND	ND	ND
	1/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
3S	7/17/86 Q	15.8	31.8	37.3 (B)	47.3	ND	ND	ND
	10/23/86 Q	18.7	46.5	26.2 (B)	71.3	ND	ND	ND
	1/28/87 Q	30.4	102	17.5 (B)	139	ND	ND	ND
	5/28/1987 Q	20.2	77.9	20.8(B)	120	ND	ND	ND
3D	7/17/1986 Q	21.4	ND	ND	ND	ND	ND	ND
	10/23/1986 Q	ND	ND	ND	ND	ND	ND	ND
	1/28/1987 Q	ND	ND	BMDL (B)	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
4S	7/17/86 Q	26.1	BMDL	6.9 (B)	27.9	ND	ND	ND
	10/23/86 Q	33.5	BMDL	20.4 (B)	34.8	ND	ND	ND
	1/28/87 Q	46.9	9.2	ND	69.3	ND	ND	ND
	5/28/1987 Q	39.2	10.5	7.85(B)	63.1	ND	ND	ND
4D	7/17/86 Q	ND	ND	10.2 (B)	BMDL	ND	ND	ND
	10/23/86 Q	ND	ND	ND	ND	ND	ND	ND
	1/28/87 Q	ND	ND	4.0 (B)	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
UPSTREAM	7/17/86 Q	ND	ND	126 (B)	ND	ND	ND	ND
	10/23/86 Q	ND	ND	32.9 (B)	ND	ND	ND	ND
	1/28/87 Q	ND	ND	BMDL (B)	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
DOWNSTREAM	7/17/86 Q	ND	ND	32.9 (B)	ND	ND	ND	ND
	10/23/86 Q	ND	ND	20.8 (B)	ND	ND	ND	ND
	1/28/87 Q	ND	ND	22.4 (B)	BMDL (B)	ND	ND	ND
	5/28/87	ND	ND	ND	ND	ND	ND	ND

Q-All of the results for this date have undergone a quality assurance review.

Qualifier Codes:

(B) - This result is of questionable qualitative significance since this compound was also detected in a blank(s) at a similar level.

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ATTACHMENT H-62

APPROVED FOR
RELEASE BY
QUALITY ASSURANCE
[Signature] 9/8/87
QA/QC-MANAGER DATE

NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
GEOLOGICAL SURVEY

Landfill Monitoring Report
AMERICAN CYANAMID SANITARY LANDFILL
WOOD AVENUE
CITY OF LINDEN, UNION COUNTY

NJ0056227

BUREAU OF MONITORING MANAGEMENT
CN 029
TRENTON NEW JERSEY
08625

955790045

ATTACHMENT 21

BUREAU OF MONITORING MANAGEMENT
MONITORING GROUP

1. Landfill: American Cyanamid Sanitary Landfill
2. Location: Wood Avenue
City of Linden, Union County
3. Permit Number: NJ0056227
Effective Date: July 15, 1985
Expiration Date: August 14, 1988
4. Number of Monitoring Wells: 8
5. Wells Sampled: Monitoring Wells #1s, #3s, #4s
6. Sampling Date: April 11, 1989
7. Sampling Type: Groundwater
8. Participating Personnel:
NJDEP: Michael Arecco, Compliance Investigator I
Landfill: Alice Boomhower
9. Findings: Sample concentrations exceeded permit limitations for the following:
MW #1S: ammonia, sulfate, TDS,

MW #3S: ammonia, MBAS, pH, sulfate, TDS, Total phenol,
Total cyanide, and total volatile organics.

MW #4S: ammonia, MBAS, pH, sulfate, TDS, Total phenol,
and total volatile organics.

Concentrations for total metals exceeded the permit limits
for dissolved metals for the following:
MW #1S: cadmium, iron, lead and manganese.

MW #3S: cadmium, iron, lead, manganese, selenium, and
sodium.

MW #4S: barium, cadmium, iron, lead, mercury, and sodium.

* Metals results are for total metals; permit limits are for
dissolved metals.

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ATTACHMENT L-2

10. Remarks: MW #3s & 4s: At the Analyst's discretion, the sample was diluted 1 to 5, based on its odor. All MDLs and Analyte concentrations were adjusted accordingly. Supelco, the manufacturer for purgeable standards, informed the laboratory that the concentration for 2-chloroethyl vinyl ether in Lot #20816 contained less than the stated amount because it was degrading rapidly. Lot #20816 was used for this analysis. Although 2-chloroethyl vinyl ether was not detected in the sample and data quality was not affected, MDL for this compound without the dilution factor was increased to 10PPB. Non-target compounds were also detected in the sample.

Sample concentrations of benzene exceeded permit limits however, due to matrix effect, benzene-D6 failed QA acceptance criteria.

All MW's: The sample contained ethylbenzene (380PPB), trans-1,2-dichloroethene (3.4), benzene (64PPB), and toluene (1034PPB). Due to instrument problems, dilution for this sample was never run. Concentrations that were reported above 100 PPB exceeded the calibration curve limit hence, these values are not accurate. 2-chloroethyl vinyl ether is a very unstable compound. Recovery for this compound is always very low or non-detected.

The Trip Blank was BMDL for methylene chloride, toluene, trans-1,2-dichloroethene, 1,1,2,2-tetrachloroethane and trichloroethene,

11. Recommendations: All monitoring wells should be resampled for all permit parameters including priority pollutants + 40. Trip and field blanks should be collected during this sampling.

12. Prepared By: Donna Genovesi

Date: October 18, 1989

13. Reviewed By: Julia R. Spiritosanto

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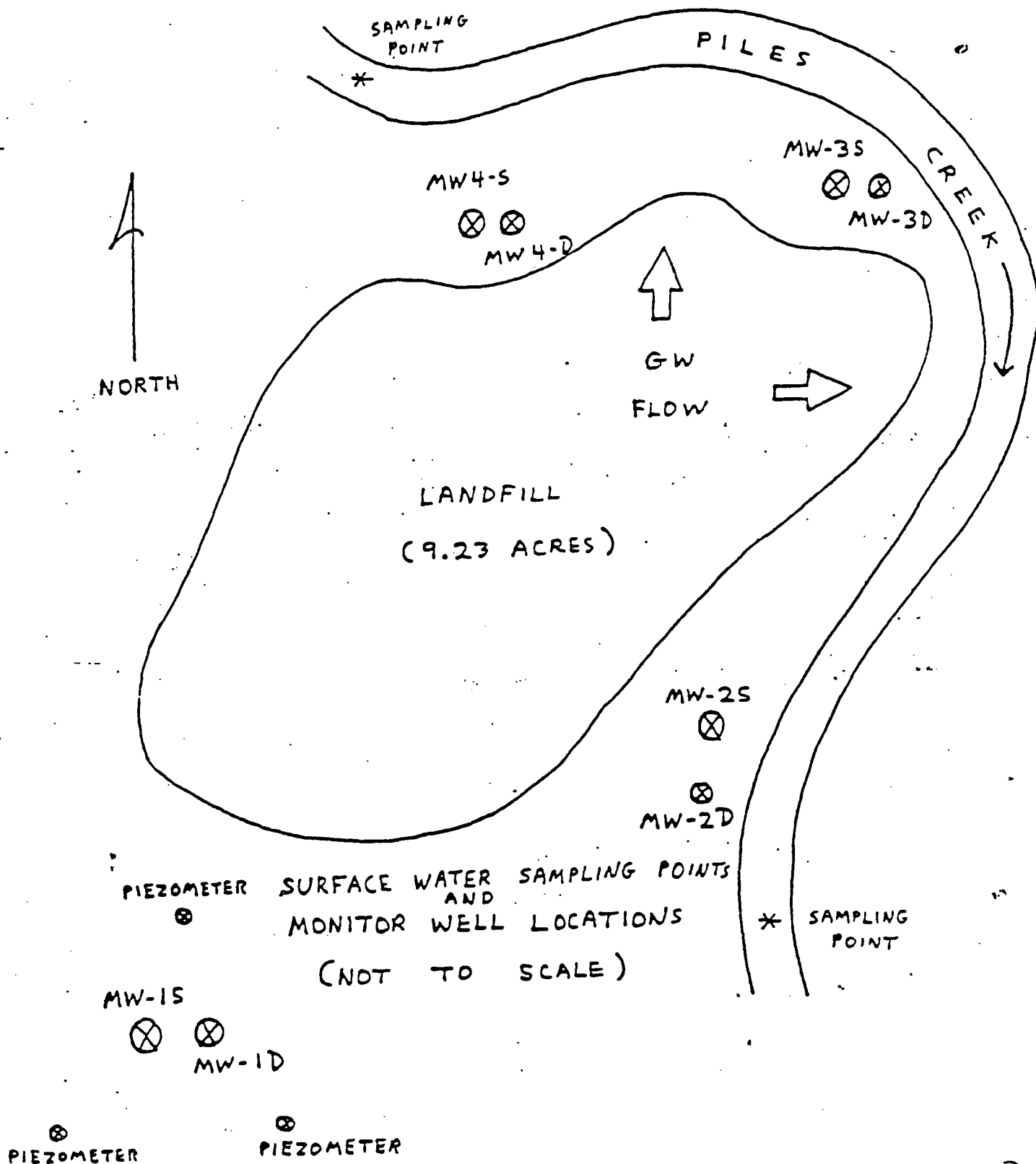
ATTACHMENT L-3

VOLATILE ANALYSIS

	MONITORING	MONITORING	METHOD	MATRIX		
			DETECTION	SPIKE	DUPLICATE	PERMIT
VOLATILE ANALYSIS	WELL 3S	WELL 4S	LIMIT	RECOVERY	DIFFERENCE	LIMIT
1,1-DICHLOROETHENE	ND	ND	15.5	115.5%	9.88%	
METHYLENE CHLORIDE *	8	BMDL	8	228.5%	6.56%	
TRANS-1,2-DICHLOROETHENE	ND	ND	11	136.5%	7.41%	
1,1-DICHLOROETHANE *	ND	ND	12.5	190.5%	13.46%	
1,1,1-TRICHLOROETHANE	ND	ND	15.5	102%	19.07%	
1,2-DICHLOROETHANE *	ND	ND	23.5	157%	17.97%	0.94
CHLOROFORM *	ND	ND	9	143%	16.08%	0.19
BROMODICHLOROMETHANE	ND	ND	36	62.5%	21.43%	
VINYL CHLORIDE	ND	ND	20	53.5%	13.10%	2.0
BENZENE	0.40	0.45	14	393%	16.57%	0.66
CARBON TETRACHLORIDE *	ND	ND	14	68%	12.41%	0.40
TRICHLOROETHENE *	ND	ND	12.5	52.5%	9.95%	
CHLOROMETHANE	ND	ND	12.5	54%	12.17%	
BROMOMETHANE	ND	ND	14	54.5%	9.61%	
CHLOROETHANE	ND	ND	15.5	79.5%	9.01%	
TRICHLOROFLUOROMETHANE	ND	ND	15.5	79.5%	12.94%	
DIBROMOCHLOROMETHANE *	ND	ND	11	36.5%	27.22%	
2-CHLOROETHYL VINYL ETHER	ND	ND	50	0%	NA	
TOLUENE	240	76	9.5	3305%	8.82%	
ETHYLBENZENE	122	14	11	1425%	4.46%	
1,2-DICHLOROPROPANE	ND	ND	8	111.5%	3.96%	
TRANS-1,3-DICHLOROPROPENE	ND	ND	8	77.5%	16.02%	
CIS-1,3-DICHLOROPROPENE	ND	ND	8	65.5%	11.51%	
1,1,2-TRICHLOROETHANE	ND	ND	9.5	62%	12.12%	0.6
TETRACHLOROETHENE *	ND	ND	11	46.5%	9.23%	
BROMOFORM *	ND	ND	11	22.5%	4.35%	
CHLOROBENZENE	ND	ND	8	41.5%	1.21%	
1,1,2,2-TETRACHLOROETHANE	ND	ND	23.5	128%	2.70%	0.17
1,3-DICHLOROBENZENE *	ND	ND	15.5	27%	13.79%	
1,4-DICHLOROBENZENE	ND	ND	9.5	24%	15.38%	
1,2-DICHLOROBENZENE	ND	ND	20.5	24%	4.26%	
TOTAL VO BY GC/MS	410	135				50
ALL UNITS IN MICROGRAMS PER LITER (UG/L) = PARTS PER BILLION (PPB)						
METHOD REFERENCE:	EPA FEDERAL REGISTER VOL. 49, NO. 209, OCT. 26, 1984 (METHOD 624) : PTS SOP 7.1.4					
METHOD DETECTION LIMITS:	CALCULATED MAY, 1987 BY METHOD 624					
	NA=NOT APPLICABLE					
	ND=NOT DETECTED					
	BMDL=CONFIRMED AND BELOW MDL					
* DUE TO MATRIX EFFECT, RECOVERIES FOR THESE COMPOUNDS FAILED QA ACCEPTANCE CRITERIA.						

ATTACHMENT

AMERICAN CYANAMID
SANITARY LANDFILL - LINDEN



955790049

ATTACHMENT L-10

SITE INSPECTION

AMERICAN CYANAMID LANDFILL

LINDEN CITY, UNION COUNTY

EPA ID NO.: NJD981178049



**New Jersey Department of Environmental Protection and Energy
Division of Responsible Party Site Remediation
Bureau of Site Assessment**

AMERICAN CYANAMID LANDFILL
WOOD AVENUE
LINDEN CITY, UNION COUNTY, NEW JERSEY
EPA ID NO. NJD981178049

GENERAL INFORMATION AND SITE HISTORY

American Cyanamid Landfill is located on Block 457, Lots 17A and 20A in Linden City, Union County. The landfill is approximately 10 acres in size and is currently inactive. The site is bound to the north and east by Piles Creek, a tributary of the Arthur Kill. West of the site is an oil and gasoline storage tank farm owned by Exxon Oil Company and to the south is a warehouse facility owned by American Cyanamid. Land use in the vicinity of the site is developed for industrial purposes. The estimated population within 1 mile of the site is 3,400. The population within a 4-mile radius of the site is approximately 248,250.

American Cyanamid purchased the property in the early 1940s and started disposing of bulky dry hazardous wastes, dry nonhazardous chemicals, industrial wastes and liquid chemical wastes in the landfill in 1948. The landfill was closed in 1980 in accordance with a NJDEP approved closure plan. The closure consisted of installing a clay cap which was covered with top soil and seeded. In addition, a clay wall was installed around the landfill; however, the landfill is unlined.

At present the American Cyanamid Landfill is no longer monitored by the NJDEP, Division of Water Resources (DWR) as it falls under the Vi-Concrete decision of 1989. The Vi-Concrete decision invalidated all NJPDES permits and monitoring requirements for sanitary landfills in New Jersey which closed prior to January 1, 1982.

SITE OPERATIONS OF CONCERN

The American Cyanamid Landfill received its waste from the American Cyanamid Warners Plant in Linden. The Warners Plant is the second oldest manufacturing plant in the American Cyanamid Company and is also the location of Cyanamid's first research laboratory where many of the company's products are developed. The plant produces a variety of organic and inorganic chemicals which include sulfuric acid, acrylamide, polyacrylamide, water and wastewater treatment chemicals, paper and fabric treatment chemicals, mining and ore production chemicals, malathion and surfactants. Materials disposed of in the landfill include:

<u>MATERIAL</u>	<u>SIZE OF CONTAINER</u>	<u>AMOUNT DEPOSITED</u>
acrylamide fiber drums	40 gallons	150 drums/month
cyanuric chloride	21 gallons	155 drums/month

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<u>MATERIAL</u>	<u>SIZE OF CONTAINER</u>	<u>AMOUNT DEPOSITED</u>
off-grade sulfur in fiber drums	40 gallons	12 drums/month
sodium chloride byproduct in steel drums	55 gallons	40 drums/month
low assay milled calcium cyanide in galvanized steel drums	28 gallons	5 drums/month
dust collector bags in galvanized steel drums	28 gallons	5 drums/month
used filter cartridges, filter papers and filter aid from filtration of dithiophosphoric and dimethyldithiophosphoric acid in fiber drums	14 gallons	250 drums/month
spent vanadium pentoxide catalyst		10,000-15,000 pounds/year
spent bauxite catalyst		2,000 pounds/year
muds from guanidine filtration in fiber drums	40 gallons	5 drums/month
scraps, floor sweepings and assorted trash from surfactants operation in fiber drums		10 drums/month
discarded laboratory samples in glass bottles	14 gallons	60 drums/month
in fiber drums	40 gallons	13 drums/month
empty, decontaminated and malathion cygon systemic insecticide pails		100-200/year

The exact amount of chemical waste buried at the Linden landfill is unknown.

During a site visit by the NJDEP, Division of Solid Waste Management on October 23, 1975, 55-gallon drums were noted to be imbedded within the perimeter of the landfill at several locations. A very strong pungent odor was associated with the drums and stained sand was observed. A small spill or seepage was also observed in the meadow, killing meadow vegetation and imparting an ink-like, bluish hue to the marsh.

A January 17, 1980 inspection by the NJDEP discovered empty drums in contact with Piles Creek at the eastern face of the site. Removal was requested, but not complied with. A leachate problem into Piles Creek was noted. Active seepage on the northern face had a black appearance as it entered the creek. The leachate had an organic odor which dissipated as it moved downstream. Disruption of the site caused malathion and an unidentified powder to be exposed. A distinctive malathion odor permeated the air and irritated the inspector's mucous membranes. Sampling was recommended; however, it is not known if it was conducted.

On June 19, 1987 during a NJDEP, Division of Hazardous Waste Management (DHWM) site inspection, conduits which extended from the landfill to a drainage ditch and the creek were observed. At the base of one such conduit on the western side of the landfill, a milky white discoloration was observed in the drainage ditch. Malathion was suspected to be the source of the contamination, as malathion was a product manufactured at the Warners Plant and was known to be deposited in the landfill. Malathion also takes on a milky white discoloration when it comes in contact with water. It was recommended that an investigation of the discharge as well as the conduits be conducted. No record of an investigation could be located in the reviewed files.

During a Pre-Sampling Assessment conducted by the NJDEP, DHWM, BPA (currently the NJDEPE, Division of Responsible Party Site Remediation [DRPSR], Bureau of Field Operations [BFO]) on April 9, 1991, no surface drainage was observed and no stressed or dead vegetation was noted in areas surrounding the landfill.

GROUNDWATER ROUTE

Geologically, the landfill is underlain by Pleistocene and recent age unconsolidated materials which overlie the Triassic age Brunswick Formation. The unconsolidated materials at the site generally consist of three stratigraphic units: an upper silty sand, an organic-rich meadow mat and a glacial till layer. The soil materials of the upper silty sand layer are generally a very fine to fine sand with variable percentages of silts and clays. The total thickness of the silty sand unit ranges from 4 to 8 feet. Directly underlying the upper silty sand unit is a meadow mat layer, a predominantly organic layer which ranges in thickness from 4 to 7 feet. The meadow mat is densely fibrous, highly porous, vegetative material with a variable percentage of

fine sands, silts, clays and fine gravels (shale fragments) found within its structure. The glacial till layer is from 13 to 16 feet. The till layer is composed of a poorly sorted, admixture of clay, silt, sand and fine gravels.

The bedrock underlying the area is the Triassic age Brunswick Formation. This formation consists primarily of brown, reddish-brown and gray shale, sandy shale and sandstone. The thickness of the formation is not known but is believed to be greater than 6,000 feet. The Brunswick Formation is highly fractured and is considered a highly productive aquifer with the most productive water bearing zone lying between 200 and 400 feet below grade.

Groundwater beneath the site exists in the voids of the unconsolidated Quaternary glacial sediments and in the joints and fractures of the Brunswick Formation. Groundwater beneath the site flows into Piles Creek in a southeast and north direction. The depth to the water table ranges approximately 2 to 8 feet below the land surface. Groundwater use in the vicinity of the site is limited to a few industrial wells screened at depths of 26 to 106 feet.

The Linden landfill maintains four pairs (one shallow, one deep) of monitoring wells on site. The shallow wells have a depth range of 5 to 8 feet and tap the unconsolidated Quaternary glacial sediments. The deep wells are 23 to 26 feet deep and also tap the glacial sediments. All wells are located either upgradient or downgradient of the landfill; none are located within the landfill. The wells have been sampled since 1986 by the NJDEP, Division of Water Resources (DWR) and Environmental Resources Management of West Chester, Pennsylvania. Results have indicated volatile organic, heavy metal and pesticide contamination. Contaminants have included malathion, mercury, arsenic, phenol, benzene, ethylbenzene, 2,4-dimethylphenol, acrolein and toluene. See the Summary of Sampling Data section of this report for complete results.

On June 10, 1985 American Cyanamid was issued NJPDES/Discharge to Groundwater Permit No. 0056227. Actual discharge is leachate from the landfill. The permit required American Cyanamid to test all monitoring wells on site on a periodic basis. However, on April 19, 1989 American Cyanamid's NJPDES permit was determined to be invalid under the Vi-Concrete decision since the landfill closed prior to January 1, 1982. Although no longer required, American Cyanamid continues to quarterly monitor all monitoring wells located at the Linden landfill site.

Groundwater within 4 miles of the landfill is used for public and industrial water supplies. Only one municipality maintains wells tapping the Brunswick Formation within 4 miles of the site. The City of Rahway maintains one well approximately 3.5 miles west of

the site, which services approximately 38,000 residents. Contamination of the well is unlikely since groundwater flow is to Piles Creek and the well is located upgradient from the site.

There are no private water supply wells within 4 miles of the site. However, there are numerous industrial water supply wells within 4 miles of the site which tap the Brunswick Formation.

SURFACE WATER ROUTE

The Linden landfill is located adjacent to Piles Creek, a tributary of the Arthur Kill. Piles Creek empties into the Arthur Kill approximately 0.1 stream mile east of the site. The Arthur Kill then flows into Raritan Bay approximately 10 stream miles south of the site or into Newark Bay 2.5 stream miles north of the site depending on tidal influence. Piles Creek is classified as a saline estuary. There are no drinking water or industrial surface water intakes within 15 miles of the site and surface water is not used for irrigation purposes.

The potential for surface water contamination exists through groundwater movement and leachate from the landfill. Stream samples collected by Environmental Resources Management of West Chester, Pennsylvania in 1986 and 1987 revealed contamination above background.

Linden landfill is located on a estuarine intertidial emergent wetland. The peregrine falcon, a state and federal endangered species, could have a nesting area within the vicinity of the site.

AIR ROUTE

American Cyanamid held no air pollution certificates for the Linden landfill and were not monitored through the NJDEPE, Division of Facility Wide Enforcement in the past. Currently, a potential for air contamination does not exist since the landfill is inactive and covered with a clay cap. There are no vents located on the landfill.

SOIL

Soil underlying the site is the Udothents, organic substratum (Ub) which is present on low lying estaurine deposits. This land type has been filled and smoothed, or otherwise extensively disturbed, to a depth of 3 feet or more. Most areas are presumed to have been deep, poorly-drained organic or mineral soils, subject to daily tidal flooding.

Five soil samples were collected by the NJDEPE, DRPSR, Bureau of Site Assessment (BSA) from the perimeter of the landfill on February 4, 1992. The highest concentrations of volatile organic compounds (VOCs) were detected in S-3, collected south of MW-3.

Numerous semivolatile compounds were detected in all the samples. In S-1, 4,4'-DDD was detected at 36 parts per billion (ppb). The sampling results are discussed in the Summary of Sampling Data section of this report.

DIRECT CONTACT

There have been no reported incidents of direct contact with hazardous waste or materials on site. A potential for direct contact does not exist as the site is covered by a clay cap.

FIRE AND EXPLOSION

There have been no reported fires or explosions at the Linden landfill. However, a potential exists as hazardous liquid and dry chemicals were known to be buried at the landfill and the landfill is not vented.

ADDITIONAL CONSIDERATIONS

Damage to flora and fauna has been observed in areas surrounding the eastern and western border of the landfill where spills or seepage from the landfill has killed meadow vegetation and caused an ink-like bluish hue in the marsh. Contamination of the food chain may occur as some of the contaminants detected on site are bioaccumulative.

ENFORCEMENT ACTIONS

On July 1, 1987 the NJDEP, Division of Solid Waste Management (DSWM) and American Cyanamid signed an Administrative Consent Order (ACO) whereby American Cyanamid agreed to comply with all provisions of the June 10, 1985 NJPDES permit which were not modified by the NJDEP and to complete and submit a hydrogeological study of the area surrounding the Linden landfill. This ACO was voided on April 19, 1989 when American Cyanamid's NJPDES permit became invlaid.

SUMMARY OF SAMPLING DATA

1. Sampling dates:	July 17, 1986; October 23, 1986; January 28, 1987; and May 28, 1987
Sampled by:	Environmental Resources Management (ERM) West Chester, Pennsylvania
Samples:	Eight groundwater samples on each date
Laboratory:	ETC (July 17, 1986) Edison, New Jersey Laboratory Certification No. 12257

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Lancaster Laboratories (all other
dates)
Lancaster, Pennsylvania
Laboratory Certification No. 77443

Parameters: Volatile organic compounds (VOCs),
metals and pesticides

Sample description: One sample was collected from each
of the on-site monitoring wells.

Contaminants detected: No pesticides were detected in any
of the samples. Sample results are
summarized in Table 1.

QA/QC: No QA/QC information was submitted
to the NJDEPE.

File location: Attachment H
NJDEPE, DRPSR, BFO-SAS
Robbinsville, New Jersey

2. Sampling date: April 11, 1989

Sampled by: NJDEP, DWR, Bureau of Monitoring
Management
Trenton, New Jersey

Samples: Three groundwater samples

Laboratory: NJDOH, Public Health and
Environmental Lab
Lawrenceville, New Jersey
Laboratory Certification No. 11758

Parameters: VOCs and metals

Sample description: Samples were collected from MW-1S,
MW-3S and MW-4S.

Contaminants detected: No VOCs were detected above NJDEPE
cleanup standards in the wells.
Metals above NJDEPE cleanup
standards and VOCs detected are
summarized below:

<u>CONTAMINANT (ppm)</u>	<u>MW-1S</u>	<u>MW-3S</u>	<u>MW-4S</u>
antimony	ND	0.028	ND
arsenic	ND	0.016	0.011
cadmium	0.03	0.1	0.05

<u>CONTAMINANT (ppm)</u>	<u>MW-1S</u>	<u>MW-3S</u>	<u>MW-4S</u>
lead	0.19	0.54	0.3
nickel	0.11	0.69	0.33
benzene (ppb)	ND	0.40	0.45
toluene (ppb)	ND	240	76
ethylbenzene (ppb)	ND	122	14

ND = not detected

QA/QC: A QA/QC review was conducted on the data.

File location: Attachment L
NJDEPE, Central Files
Trenton, New Jersey

3. Sampling date: July 9 and 10, 1990

Sampled by: American Cyanamid
Linden, New Jersey

Samples: Eight groundwater samples on each date and two surface water samples

Laboratory: ETC
Edison, New Jersey
Laboratory Certification No. 12257

Parameters: VOCs and semivolatiles

Sample description: Groundwater samples were collected from on-site monitoring wells. One surface water sample was collected upstream and one downstream.

Contaminants detected: Acrolein at 50 ppb was detected in the upstream sample and the downstream sample. Toluene at 1.37 ppb was also detected in the downstream sample. No contaminants were detected in MW-1S and MW-2D. Contaminants detected are summarized below:

<u>CONTAMINANT (ppb)</u>	<u>MW-1D</u>	<u>MW-2S</u>	<u>MW-3S</u>	<u>MW-3D</u>	<u>MW-4S</u>	<u>MW-4D</u>
benzene	ND	3.66*	47.5*	ND	30.3*	ND
chlorobenzene	ND	2.09	ND	ND	6.64*	ND
ethylbenzene	ND	ND	ND	ND	9.34	ND
toluene	ND	ND	ND	1.23	65.6	ND
2,4-dimethylphenol	ND	ND	48,000*	140*	1,440*	ND
phenol	5.99	2.8	34,000*	182	489	ND
acrolein	ND	ND	ND	85.7	ND	1,250
1,1-dichloroethane	ND	1.09	ND	ND	ND	ND

ND = not detected

* = above NJDEPE proposed cleanup standards

955790060

QA/QC: No QA/QC information was submitted to the NJDEPE.

File location: Attachment M
NJDEPE, Central Files
Trenton, New Jersey

4. Sampling date: February 4, 1992

Sampled by: NJDEPE, DRPSR, BSA
Robbinsville, New Jersey

Samples: Six soil samples

Laboratory: NYTEST Environmental, Inc.
Port Washington, New York
Laboratory Certification No. 73469

Parameters: Target Compound List

Sample description:

<u>SAMPLE NO.</u>	<u>DEPTH (inches)</u>	<u>LOCATION</u>
S-1	18-24	Along drainage ditch and PSE&G right-of-way
S-2	18	Beneath drainage pipe on the north side of the landfill
S-3	18	South of MW-3
S-4	12	South of culvert on the east side of the landfill
S-5	18	East of the landfill, north of the railroad bridge and south of MW-1
S-7	18	Duplicate of S-2

Contaminants detected: The only pesticide detected was 4,4'-DDD at 36 ppb in S-1 and 7.5 ppb in S-7. Metals detected above NJDEPE Proposed Cleanup Standards were arsenic at 161 ppm, 251 ppm and 470 ppm and chromium at 115 ppm, 112 ppm and 192 ppm in S-1, S-2 and S-7, respectively. Contaminants detected are summarized in Table 2.

QA/QC: A formal QA/QC review was conducted. Methylene chloride and acetone results were negated for all samples.

File location: Attachment S
NJDEPE, DRPSR, BFO-SAS
Robbinsville, New Jersey

RECOMMENDATIONS

American Cyanamid's Linden landfill was closed in 1980 in accordance with an NJDEP approved closure plan. American Cyanamid continues to monitor groundwater contamination although no longer required. Soil sampling has indicated contamination along the perimeter of the landfill. It is recommended that this site be transferred to the NJDEPE, DRPSR, Bureau of State Case Management for further action. Further action under CERCLA is not warranted at this time.

Submitted by:

Donna J. van Veldhuisen
HSMS II
Bureau of Field Operations
September 1992

TABLE 1

TABLE 4-3
 LABORATORY ANALYSES RESULTS: VOLATILE ORGANIC COMPOUNDS / PESTICIDES
 LINDEN LANDFILL, NJ.
 (All results reported in ug/L. ND = none detected. BMDL = below minimum detection limits.)

Sample Location	Date Sampled	Benzene	Ethylbenzene	Methylene Chloride	Toluene	Trichlorofluoromethane	1,1,1-Trichloroethane	Pesticides
1S	7/17/86 Q	ND	ND	ND	ND	ND	ND	ND
	10/23/86 Q	BMDL	ND	4.8 (B)	ND	ND	ND	ND
	1/28/87 Q	ND	ND	ND	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
1D	7/17/1988 Q	21	ND	113 (B)	ND	12.8 (B)	ND	ND
	10/23/1988 Q	ND	ND	ND	ND	ND	ND	ND
	1/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
2S	7/17/86 Q	ND	ND	216 (B)	ND	BMDL (B)	ND	ND
	10/23/86 Q	BMDL	BMDL	19.3 (B)	ND	ND	ND	ND
	1/28/87 Q	4.8 (B)	ND	3.2 (B)	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	8.86 (B)	ND	ND	ND	ND
2D	7/17/1988 Q	BMDL (B)	ND	207 (B)	ND	BMDL (B)	ND	ND
	10/23/1988 Q	ND	ND	19.2 (B)	ND	ND	ND	ND
	1/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
3S	7/17/86 Q	15.8	31.8	37.3 (B)	47.3	ND	ND	ND
	10/23/86 Q	18.7	46.5	26.2 (B)	71.3	ND	ND	ND
	1/28/87 Q	30.4	102	17.5 (B)	139	ND	ND	ND
	5/28/1987 Q	20.2	77.9	20.8 (B)	120	ND	ND	ND
3D	7/17/1988 Q	21.4	ND	ND	ND	ND	ND	ND
	10/23/1988 Q	ND	ND	ND	ND	ND	ND	ND
	1/28/1987 Q	ND	ND	BMDL (B)	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
4S	7/17/86 Q	26.1	BMDL	6.9 (B)	27.9	ND	ND	ND
	10/23/86 Q	33.5	BMDL	20.4 (B)	34.8	ND	ND	ND
	1/28/87 Q	46.9	9.2	ND	69.3	ND	ND	ND
	5/28/1987 Q	39.2	10.5	7.85 (B)	63.1	ND	ND	ND
4D	7/17/86 Q	ND	ND	10.2 (B)	BMDL	ND	ND	ND
	10/23/86 Q	ND	ND	ND	ND	ND	ND	ND
	1/28/87 Q	ND	ND	4.0 (B)	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
UPSTREAM	7/17/86 Q	ND	ND	126 (B)	ND	ND	ND	ND
	10/23/86 Q	ND	ND	32.9 (B)	ND	ND	ND	ND
	1/28/87 Q	ND	ND	BMDL (B)	ND	ND	ND	ND
	5/28/1987 Q	ND	ND	ND	ND	ND	ND	ND
DOWNSTREAM	7/17/86 Q	ND	ND	32.9 (B)	ND	ND	ND	ND
	10/23/86 Q	ND	ND	20.8 (B)	ND	ND	ND	ND
	1/28/87 Q	ND	ND	22.4 (B)	BMDL (B)	ND	ND	ND
	5/28/87	ND	ND	ND	ND	ND	ND	ND

Q-All of the results for this date have undergone a quality assurance review.

Qualifier Codes:

(B) - This result is of questionable qualitative significance since this compound was also detected in a blank(s) at a similar level.

TABLE 1 (cont.)

TABLE 4-4

LABORATORY ANALYSES RESULTS: TRACE ELEMENTS
LINDEN LANDFILL, NJ.

(All results reported in ug/l. NO = none detected. BMDL = below method detection limits.)

(Blank = Parameter not tested.)

Sample Location	Date Sampled	Lab	Arsenic	Barium	Cadmium	Total Chromium	Trivalent Chromium	Hexavalent Chromium	Copper	Iron	Lead	Manganese	Mercury	Selenium	Silver	Zinc
19	7/17/86	E	NO	210	BMDL	BMDL			66	6100	77	367	NO	BMDL	BMDL	180
	10/23/86	L	12	NO	NO	NO		NO	NO	1590	NO	440	2	NO	NO	NO
	1/28/87	L	14	NO	NO	NO	<50	NO	NO	180	NO	90	NO	5	NO	770
	5/28/87	L	11	NO	NO	NO	<50	NO	NO	1000	NO	120	NO	NO	NO	30 B
10	7/17/86	E	NO	120	NO	NO			BMDL	1900	NO	75	NO	BMDL	BMDL	30
	10/23/86	L	NO	NO	NO	NO		NO	NO	NO	NO	450	2	NO	NO	NO
	1/28/87	L	NO	NO	NO	NO	<50	NO	NO	NO	NO	510	NO	NO	NO	20
	5/28/87	L	NO	NO	NO	NO	<50	NO	NO	70	NO	670	NO	NO	NO	70 B
29	7/17/86	E	2800	150	43	NO			BMDL	2800	BMDL	170	0.7	NO	NO	60
	10/23/86	L	2350	NO	NO	NO		NO	NO	NO	NO	40	NO	NO	NO	10
	1/28/87	L	3050	NO	NO	NO	<50	NO	NO	NO	NO	190	NO	NO	NO	10
	5/28/87	L	1260	NO	NO	NO	<50	NO	NO	530	NO	280	NO	NO	20 B	50 B
20	7/17/86	E	NO	130	NO	NO			NO	1200	NO	85	NO	NO	NO	44
	10/23/86	L	30	100	NO	NO		NO	NO	NO	NO	260	2	NO	NO	10
	1/28/87	L	48	100	NO	NO	<50	NO	NO	NO	NO	300	NO	NO	NO	NO
	5/28/87	L	41	100	NO	NO	<50	NO	NO	50	NO	430	NO	NO	10 B	150 B
39	7/17/86	E	BMDL	220	BMDL	NO			15	8800	NO	14	0.8	BMDL	BMDL	37
	10/23/86	L	180	NO	NO	NO		NO	NO	3510	NO	90	NO	20	NO	10
	1/28/87	L	80	NO	NO	NO	<50	NO	NO	2290	NO	NO	NO	NO	NO	NO
	5/28/87	L	22	NO	NO	NO	<50	NO	NO	3620	NO	NO	NO	18	20 B	80 B
30	7/17/86	E	NO	87	NO	NO			48	5600	BMDL	774	NO	NO	NO	86
	10/23/86	L	NO	NO	NO	NO		NO	NO	160	NO	640	2	NO	NO	NO
	1/28/87	L	NO	NO	NO	NO	<30	NO	NO	90	NO	580	NO	NO	NO	NO
	5/28/87	L	16 S	NO	NO	NO	<50	NO	NO	300	NO	830	NO	NO	20 B	40 B
49	7/17/86	E	200	240	BMDL	NO			BMDL	2900	NO	8.1	7.3	BMDL	BMDL	31
	10/23/86	L	200	100	NO	NO		NO	NO	990	NO	NO	NO	NO	NO	10
	1/28/87	L	194	NO	NO	NO	<50	NO	NO	1530	NO	NO	6	10	NO	10
	5/28/87	L	250	NO	NO	NO	<50	NO	NO	460	NO	NO	6	10	20 B	30 B
40	7/17/86	E	BMDL	NO	NO	150			110	129000	81	2480	NO	NO	BMDL	480
	10/23/86	L	NO	NO	NO	NO		NO	NO	NO	NO	NO	NO	NO	NO	NO
	1/28/87	L	NO	NO	NO	NO	<50	NO	NO	NO	NO	NO	NO	NO	NO	NO
	5/28/87	L	NO	NO	NO	NO	<50	NO	NO	50	NO	10 B	NO	NO	NO	90 B
UPSTREAM	7/17/86	E	BMDL	130	NO	BMDL			38	2700	BMDL	270	1.1	NO	NO	80
	10/23/86	L	20	NO	NO	NO		0.02	NO	NO	NO	270	NO	NO	NO	NO
	1/28/87	L	20	NO	NO	NO	<50	NO	NO	510	NO	110	NO	NO	NO	60
	5/28/87	L	49	NO	NO	NO	<50	NO	NO	80	NO	390	NO	NO	10 B	30 B
DOWNSTREAM	7/17/86	E	BMDL	340	BMDL	64			150	11000	99	240	4.4	NO	BMDL	230
	10/23/86	L	20	NO	NO	NO		NO	NO	NO	NO	120	NO	NO	NO	NO
	1/28/87	L	32	NO	NO	NO	<50	NO	NO	1080	NO	130	NO	NO	NO	70
	5/28/87	L	40	NO	NO	NO	<50	NO	NO	90	NO	180	NO	NO	10 B	30 B

* - Lab Abbreviations:

E - ETC Lab, NJ.

L - Lancaster Laboratories, Lancaster, PA.

Qualifier Codes:

B - This result is of questionable qualitative significance since this constituent was detected in blank(s) at similar levels.
S - This result should be considered suspect - see the quality assurance review.

955790064

TABLE 2

<u>CONTAMINANTS (ppb)</u>	<u>S-1</u>	<u>S-2</u>	<u>S-3</u>	<u>S-4</u>	<u>S-5</u>	<u>S-7</u>
2-butanone	2J	ND	18J	ND	7J	8J
benzene	4J	ND	4J	ND	3J	ND
toluene	6J	1J	120	ND	ND	2J
ethylbenzene	4J	ND	290	ND	2J	ND
xylene	7J	ND	980	ND	ND	ND
4-methyl-2-pentanone	ND	ND	670	ND	ND	2J
2-hexanone	ND	ND	34J	ND	ND	ND
carbon disulfide	ND	ND	ND	ND	1J	ND
chlorobenzene	ND	ND	ND	ND	1J	ND
phenol	940J	ND	3,800	ND	190J	190J
2-methylphenol	1,100J	ND	6,300	ND	ND	ND
4-methylphenol	1,400J	ND	6,400	ND	ND	35J
2,4-dimethylphenol	9,800	ND	11,000	ND	ND	ND
1,2,4-trichlorobenzene	290J	66J	120J	ND	ND	ND
naphthalene	680J	ND	ND	ND	120J	41J
2-methylnaphthalene	190J	22J	ND	ND	12J	31J
acenaphthene	2,800	ND	ND	ND	ND	ND
dibenzofuran	1,600J	ND	ND	ND	ND	ND
fluorene	3,100	ND	ND	ND	ND	ND
N-nitrosodiphenylamine	820J	ND	ND	ND	ND	ND
phenanthrene	21,000	49J	ND	ND	65J	57J
anthracene	6,300	ND	ND	ND	ND	ND
carbazole	2,800	ND	ND	ND	ND	ND
di-n-butylphthalate	500J	70J	ND	ND	ND	ND
fluoranthene	15,000	ND	ND	ND	ND	64J
pyrene	14,000	ND	ND	ND	ND	ND
benzo(a)anthracene	9,900*	ND	ND	ND	ND	ND
chrysene	12,000*	ND	ND	ND	ND	ND
bis(2-ethylhexyl)phthalate	8,500	1,500	1,800	220J	1,500	1,400
benzo(b)fluoranthene	8,600	ND	ND	ND	ND	ND
benzo(k)fluoranthene	5,800*	ND	ND	ND	ND	ND
benzo(a)pyrene	8,500*	ND	ND	ND	ND	ND
indeno(1,2,3-cd)pyrene	4,900*	ND	ND	ND	ND	ND
benzo(g,h,i)perylene	3,400*	ND	ND	ND	ND	ND

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TABLE 2 (CONT.)

<u>CONTAMINANTS (ppb)</u>	<u>S-1</u>	<u>S-2</u>	<u>S-3</u>	<u>S-4</u>	<u>S-5</u>	<u>S-7</u>
1,4-dichlorobenzene	ND	49J	ND	ND	ND	87J
butylbenzylphthalate	ND	170J	ND	ND	ND	ND
3-nitroaniline	ND	ND	ND	400J	1,300	ND
1,2-dichlorobenzene	ND	ND	ND	ND	ND	34J
di-n-octylphthalate	ND	ND	ND	ND	ND	66J

ND=not detected

* above NJDEPE proposed cleanup standards

955790066

MEMO

TO Ronald T. Corcory

FROM Kevin Gashlin DATE January 22, 1980

SUBJECT American Cyanamid Landfill*

*This memo is an update of conditions at the landfill.
See previous report dated January 3, 1980.

Inspection was accomplished on January 17, 1980, by John Berg, Marty Buys and myself. We were accompanied by Stuart Hathaway, manager of Environmental Science at Cyanamid. The purpose of this venture was to observe compliance with SWA regulations, specifically as they pertain to daily cover, leachate into Piles Creek, and monitoring well results for Malathion. The following is a summary of observed conditions and recommendations.


1. A cutback operation was in progress at the northern face of the site, parallel with Piles Creek. The heavy equipment operator was observed in a full face mask breathing from an air cylinder. The unearthed material is trucked to the southern end of the site and dumped. Although grading of this material is accomplished, the deposits have remained without application of daily cover. This is clearly a violation. An N.O.P. is strongly advised.
2. Empty drums were found in contact with Piles Creek at the eastern face of the site. Removal was requested on 1-7-80 but this request was not complied with. Again, this violation should be dealt with officially.
3. A problem of leachate into Piles Creek continues. Active seepage from the northern face has a black appearance at its entrance point to the creek. The leachate has a reduced organic odor and dispatates quickly as it moves downstream. My concern is based upon ongoing disruption of the site which is obviously introducing contaminates to exposure and may eventually enter the surface waters. Samples which have been retrieved have not been analyzed. Analysis is again requested.
4. Unearthed glass sample bottles are chronically observed. Malathion and unidentified powder are among materials exposed. Although collection of exposed chemicals has been attempted, it has not been effective. I therefore suggest that appropriate fines be imposed.

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ATTACHMENT B-1

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5. The malathion problem becomes quite evident as the wind dies down. The distinctive odor permeates the entire area and is irritating to mucous membranes. September 1979 monitoring well tests reveal between 0-30 ppb in both #1 and #2 wells. EPA water quality criteria lists acceptable input of malathion into aquatic environments as 0.1 ppb. Clearly, a potential hazard exists. I recommend a sampling program of Piles Creek be implemented immediately. December well tests unofficially show an increase in malathion content, though the quantitative results have not been sent to Frank Coolick.

In conclusion, I submit that American Cyanamid should be taken to task for the aforementioned omissions and negligence which prevails. The Marshland and creek which are integrated so closely to the landfill are important ecological pathways needing protection.


Kevin Gashlin

11b

(V-2)

955790068

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ATTACHMENT B-2



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
John J. Trela, Ph.D., Acting Director
401 East State St.
CN 028
Trenton, N.J. 08625
609 - 633 - 1408
M E M O R A N D U M

JUL 27 1987

TO: ANTHONY CAVALIER, CHIEF
BUREAU OF FIELD OPERATIONS
METRO FIELD OFFICE

FROM: STEPHEN A. BORGIANINI, ACTING CHIEF *[Signature]*
BUREAU OF PLANNING AND ASSESSMENT

SUBJECT: AMERICAN CYANAMID, LINDEN LANDFILL

In conjunction with a RCRA Facility Assessment, a site inspection was conducted at the American Cyanamid Warners Plant, Linden on June 19, 1987. One area observed during the course of this inspection was Cyanamid's closed landfill in Linden. This landfill covers an area of approximately ten (10) acres and was active until 1979 receiving production wastes from the Warners Plant. The landfill is situated on a tidal marsh and is adjacent to Piles Creek and an unnamed drainage ditch. A clay dike, which is keyed into the meadow mat, surrounds the landfill.

At the time of the inspection, conduits were observed which extended from the landfill, under the road and dike, to a discharge in the ditch and the creek. At the base of one such conduit on the western side of the landfill, a milky white discoloration was observed in the drainage ditch. As Malathion, a product manufactured at the Warners Plant and known to be deposited in this landfill, takes on a milky white discoloration when it comes in contact with water, it is recommended that an investigation of this discharge as well as these conduits be initiated.

If you have any questions regarding this recommendation, please contact Clare Sullivan of my staff at 609-633-2218.

CS:mz

c: Dave Shotwell, Chief, Bureau of Field Operations

955790069

WA Solid W
2/1/78
AMERICAN CYANAMID COMPANY
P. O. BOX 31, LINDEN, NEW JERSEY 07036
AREA CODE 201 862-6000

March 1, 1978 J. M. WITHEFORD

Mr. Frank Coolick
Principal Environmental Engineer
State of New Jersey
Department of Environmental Protection
Solid Waste Administration
Trenton, New Jersey

Reference: American Cyanamid Company Sanitary Landfill
Linden, City, Union County,
Facility #2009D (75-8)

Dear Mr. Coolick:


In response to your request of November 9, 1977 and your subsequent meeting with our Mr. Hathaway in January, 1978, we have tabulated those materials being disposed of in the referenced landfill on the attached sheets.

Please contact us at (201) 862-6000 if you have any further questions.

This submission and any past or future communications or discussions regarding this matter are not intended to admit any fact or liability or to waive or affect any rights.

Yours very truly,

AMERICAN CYANAMID COMPANY


L. B. Reid
Plant Manager

Attachments

bcc:	Mr. J. T. Childs	NA	Dr. R. L. Hillard	WA
	Mr. R. T. Fagan	WA	Mr. R. Parlante	NA
	Mr. A. A. Groeller	WA	Mr. J. M. Witheford	NA ✓
	Mr. S. R. Hathaway	WA		

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P1

Attachment 1

Materials Disposed of in the Sanitary Land Fill

Used acrylamide fiber drums (40 gallon) containing some off-grade acrylamide, some poly-acrylamide and various waste and trash including floor sweepings, rubber gloves, etc. - approximately 150 drums per month.

Empty cyanuric chloride drums (21 US Gallons) in polyethylene bags - approximately 155 drums per month.

Sulfur, off-grade, in fiber drums (40 gallon) - approximately 12 drums per month.

Sodium chloride by-product from the manufacture of diallyldimethyl ammonium chloride in 55 gallon steel drums - approximately 40 drums per month.

Low assay milled calcium cyanide in galvanized steel drum (23 Imperial gallon) approximately 5 drums per month.

Dust collector bags from calcium cyanide milling operation in galvanized steel (23 Imperial gallons) - approximately 5 drums per month.

Used filter cartridges, filter papers and filter aid from filtration of diethyl-dithiophosphoric and dimethyldithiophosphoric acid plus floor sweeping, gloves etc. in fiber drum (14 gallon) - approximately 250 drums per month.

Spent vanadium pentoxide catalyst - approximately 10,000 - 15,000 pounds per year.

Spent bauxite catalyst - approximately 2000 pounds per year.

Muds from guanidine filtration in fiber drums (40 gallon) - approximately 5 drums per month.

Scraps and floor sweepings and assorted trash from surfactants operation in fiber drums (approximately 10 drums per month).

Discarded laboratory samples in glass bottles in fiber drums - approximately 60 fourteen gallon drums per month and 30 forty gallon drums per month. A list of materials included in the discarded sample is shown in Attachment 2.

Empty, decontaminated and malathion CYGON* systemic insecticide pails - 100 - 200 per year.

Attachment 2

DISCARDED LABORATORY SAMPLES

Acrylonitrile	Acrylamide
Amyl alcohol	Liquid Surfactants
Ethyl hexyl alcohol	Dry Surfactants
2 - Ethyl alcohol	Diethyl Maleate
Isopropyl alcohol	Diallyldimethylammonium Chloride
Isobutyl alcohol	4-Methyl-2-Imino-1,3-Dithiolane Hydrochloride
Methylisobutyl alcohol	2-Imino-1,3-Dithiolane Sulfate .
Secondary butyl alcohol	Allyl Amyl Xanthate
Tridecyl alcohol	Sodium-4-Morpholine-Carbodithioate
Methyl alcohol	Diphenylguanidine
Isodecanol	Diorthotolylguanidine
Aniline	MAGNIFLOC [®] 535C
Alfonic 1012-60	ACCOSTRENGTH [®] Paper Resins
Allyl chloride	Dimethylaminopropionitrile
Anhydrous ammonia	Tetramethyl Guanidine
Ethyl acetate	Triallyl Cyanurate
Sulfur	Liquid AEROFLOAT [®]
Calcium cyanide	Polyacrylamide
Hydrochloric acid	Methylolacrylamide
Maleic anhydride	CYGON* Systemic Insecticide
Mixed fatty amine	WARBEX [®] Famphur
Orthotoluidene	Malathion
Sodium MBT Solution	Diethyldithiophosphoric Acid
Aqueous ammonia	Calcium Cyanide
Caustic soda	Malathion Dry Blends
Cresylic acid	CYGON* Dry Blends
Cyclohexanol	AM-9 Chemical Grout
Cyclohexanone	THIMET [®] Systemic Insecticide
Dimethylphosphorochloridothionate	COUNTER [®] Soil Insecticide
Ethyl mercaptan	Liquid Pesticide Blends
Formaldehyde	Aqueous AEROFLOATS [®]
Sodium carbonate	ABATE [®] Manufacturing Concentrate
Toluene	Sulfuric Acid
Butyl mercaptan	Aluminum Sulfate



State of New Jersey
Department of Environmental Protection and Energy
Division of Responsible Party Site Remediation

CN 028
Trenton, NJ 08625-0028
Tel. # 609-633-1408
Fax. # 609-633-1454

Scott A. Weiner
Commissioner

Karl J. Delaney
Director

March 16, 1992

Angela Dohl
American Cyanamid Company
Warners Plant
P.O. Box 31
Linden, New Jersey 07036

Dear Ms. Dohl:

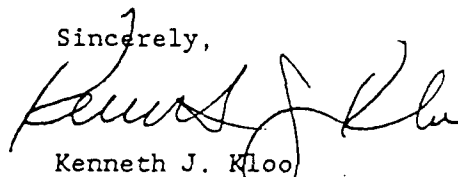
Pursuant to the requirements of N.J.S.A. 13:1D-9 (d), the Department of Environmental Protection and Energy is providing a copy of the analytical report relative to the sampling performed at your facility on February 4, 1992. An evaluation of data quality has not been performed by the Department.

This report contains analytical data for the following:

<u>Sample #</u>	<u>Sample Location</u>
S-1	Along drainage ditch and PSE&G right-of-way
S-2	Beneath drainage pipe on the north side of the landfill
S-3	South of MW-3
S-4	South of culvert on the east side of the landfill
S-5	East side of the landfill, north of railroad bridge and south of MW-1
S-6 (not collected)	
S-7	Duplicate of S-2

Please review the enclosed report and contact Donna van Veldhuisen at (609) 584-4280 if you have any questions.

Sincerely,


Kenneth J. Kloo
Section Chief
Bureau of Site Assessment

Enclosure

51



TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc.

Project No.: 9218749
Log in No. : 11357
P.O. No. : 89032
Date : March 12, 1992

SUMMARY DATA REPORT
PACKAGE FOR

NJDEPE

300 Horizon Center

Robbinsville, NJ 07691

ATTN: Frank Source
REF: American Cyanamid

LABORATORY
NUMBER

SAMPLE
IDENTIFICATION

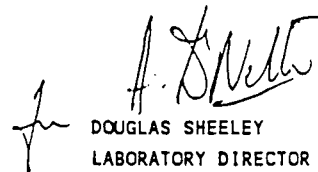
TYPE OF
SAMPLE

SEE NEXT PAGE

WE CERTIFY THAT THIS REPORT IS A
TRUE REPORT OF RESULTS OBTAINED
FROM OUR TESTS OF THIS MATERIAL.

PARAG K. SHAH, Ph. D.
ORGANIC LAB. MANAGER
psf

RESPECTFULLY SUBMITTED,
NYTEST ENVIRONMENTAL INC.


DOUGLAS SHEELEY
LABORATORY DIRECTOR
NJ Cert# 73469

Report on sample(s) furnished by client applies to sample(s). Report on sample(s) obtained by us applies only to lot sampled. Information contained herein is not to be used for reproduction except by special permission. Sample(s) will be retained for thirty days maximum after date of report unless specifically requested otherwise by client. In the event that there are portions or parts of sample(s) remaining after Nytest has completed the required tests, Nytest shall have the option of returning such sample(s) to the client at the client's expense.

box 1518 □ 60 seaview blvd., port washington, ny 11050 □ (516) 625-5500

955790074

52

NYTEST ENVIRONMENTAL Inc.

LABORATORY NUMBER	SAMPLE IDENTIFICATION	TYPE OF SAMPLE
1135701	S-1	Soil
1135702	S-2	Soil
1135703	S-3	Soil
1135704	S-4	Soil
1135705	S-5	Soil
1135706	S-7	Soil
1135707	FIELD BLK	Water
1135708	S-1MS	Soil
1135709	S-1MSD	Soil

nytest environmental inc.

Method Qualifiers for USEPA Organic CLP Protocol (3/90)

Q Qualifier - Specified entries and their meanings as follows:

- U - Indicates compound was analyzed for but was not detected. The sample quantitation limit is corrected for dilutions and the moisture content for soil samples. If a sample extract cannot be concentrated to the protocol - specific volume, this fact is also accounted for in reporting the sample quantitation limit. The number is the minimum attainable detected limits for the sample.
- J - Indicates an estimated value. The flag is used either when estimating concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N - Indicate presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.
- P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "p".
- C - This flag applies to pesticide results where the identification has been successfully confirmed.
- B - This flag is used when the analyte is found in the associated blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound.
- E - This flag identifies compounds whose concentrations exceeded the calibration range of the GC/MS instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.

1
INORGANIC ANALYSIS DATA SHEET

S-0001

Lab Name: NYTEST ENVIRONMENTAL INC.

Contract: 9218749

Lab Code: 73469

Case No.: 11357

SAS No.:

SDG No.: SDG540

Matrix (soil/water): SOIL

Lab Sample ID: 135701

Level (low/med): LOW

Date Received: 02/05/92

Solids: 56.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13200	-		P
7440-36-0	Antimony	16.6	N		P
7440-38-2	Arsenic	161	S*		F
7440-39-3	Barium	532	N*		P
7440-41-7	Beryllium	0.75	B		P
7440-43-9	Cadmium	0.73	U		P
7440-70-2	Calcium	43400			P
7440-47-3	Chromium	115	N*		P
7440-48-4	Cobalt	9.4	N		P
7440-50-8	Copper	273			P
7439-89-6	Iron	24500			P
7439-92-1	Lead	225			P
7439-95-4	Magnesium	2560			P
7439-96-5	Manganese	404	*		P
7439-97-6	Mercury	16.4			CV
7440-02-0	Nickel	47.7	N		P
7440-09-7	Potassium	2620			P
7782-49-2	Selenium	2.9	N**		F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	1450			P
7440-28-0	Thallium	0.89	U W		F
7440-62-2	Vanadium	40.5	N		P
7440-66-6	Zinc	229	EN		P
	Cyanide	0.80	U		AS

Color Before: BLACK

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

S-1

ARSENIC AT A 20x DILUTION.

E : ESTIMATED DUE TO HIGH % DIFFERENCE ON THE SERIAL DILUTION.

1
INORGANIC ANALYSIS DATA SHEET

S-0002

Lab Name: NYTEST ENVIRONMENTAL INC.

Contract: 9218749

Lab Code: 73469

Case No.: 11357

SAS No.:

SDG No.: SDG540

Matrix (soil/water): SOIL

Lab Sample ID: 135702

Level (low/med): LOW

Date Received: 02/05/92

% Solids: 63.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11300	-	-	P
7440-36-0	Antimony	28.6	N		P
7440-38-2	Arsenic	251	*		F
7440-39-3	Barium	118	N*		P
7440-41-7	Beryllium	0.41	B		P
7440-43-9	Cadmium	0.65	U		P
7440-70-2	Calcium	147	B		P
7440-47-3	Chromium	112	N*		P
7440-48-4	Cobalt	93.3	N		P
7440-50-8	Copper	221			P
7439-89-6	Iron	61.2			P
7439-92-1	Lead	85.6			P
7439-95-4	Magnesium	1070			P
7439-96-5	Manganese	253	*		P
7439-97-6	Mercury	2.5			CV
7440-02-0	Nickel	29.8	N		P
7440-09-7	Potassium	519	B		P
7782-49-2	Selenium	0.79	U N*		F
7440-22-4	Silver	0.90	U		P
7440-23-5	Sodium	710	B		P
7440-28-0	Thallium	0.79	U WE		F
7440-62-2	Vanadium	17.3	N		P
7440-66-6	Zinc	709	EN		P
	Cyanide	0.72	U		AS

Color Before: BLACK

Clarity Before:

Texture: MEDIUM

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

S-2

CALCIUM - 1:3 DIL

IRON - 1:3 DIL

E : ESTIMATED DUE TO HIGH % DIFFERENCE ON THE SERIAL DILUTION.

U.S. EPA - CLP

EPA SAMPLE NO.

1
INORGANIC ANALYSIS DATA SHEET

S-0003

Name: NYTEST ENVIRONMENTAL INC.

Contract: 9218749

Code: 73469

Case No.: 11357

SAS No.:

SDG No.: SDG540

Matrix (soil/water): SOIL

Lab Sample ID: 135703

Level (low/med): LOW

Date Received: 02/05/92

Solids: 89.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3900			P
7440-36-0	Antimony	4.7	U	N	P
7440-38-2	Arsenic	2.8		S*	F
7440-39-3	Barium	23.1		N*	P
7440-41-7	Beryllium	0.38	B		P
7440-43-9	Cadmium	0.46	U		P
7440-70-2	Calcium	2670			P
7440-47-3	Chromium	14.6		N*	P
7440-48-4	Cobalt	2.5	B	N	P
7440-50-8	Copper	24.6			P
7439-89-6	Iron	5860			P
7439-92-1	Lead	7.8			F
7439-95-4	Magnesium	153	B		P
7439-96-5	Manganese	24.1		*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.5	B	N	P
7440-09-7	Potassium	162	U		P
7782-49-2	Selenium	0.56	U	N*	F
7440-22-4	Silver	0.64	U		P
7440-23-5	Sodium	455	B		P
7440-28-0	Thallium	0.56	U	W	F
7440-62-2	Vanadium	11.2		N	P
7440-66-6	Zinc	12.7		EN	P
	Cyanide	0.57	U		AS

Color Before: YELLOW

Clarity Before:

Texture: MEDIUM

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

3-3

LEAD - 1:2 DIL

: ESTIMATED DUE TO HIGH % DIFFERENCE ON THE SERIAL DILUTION.

FORM I - IN

3/90

955790079

01004 558

1

INORGANIC ANALYSIS DATA SHEET

S-0004

Name: NYTEST ENVIRONMENTAL INC.

Contract: 9218749

b Code: 73469

Case No.: 11357

SAS No.:

SDG No.: SDG540

trix (soil/water): SOIL

Lab Sample ID: 135704

vel (low/med): LOW

Date Received: 02/05/92

Solids: 79.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8820	-		P
7440-36-0	Antimony	5.3	U	N	P
7440-38-2	Arsenic	2.2		*	F
7440-39-3	Barium	61.6		N*	P
7440-41-7	Beryllium	0.59	B		P
7440-43-9	Cadmium	0.51	U		P
7440-70-2	Calcium	150	B		P
7440-47-3	Chromium	19.5		N*	P
7440-48-4	Cobalt	2.4	B	N	P
7440-50-8	Copper	12.1			P
7439-89-6	Iron	2370			P
7439-92-1	Lead	21.0			P
7439-95-4	Magnesium	413	B		P
7439-96-5	Manganese	15.0		*	P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	5.1		N	P
7440-09-7	Potassium	1640			P
7782-49-2	Selenium	0.63	U	N*	F
7440-22-4	Silver	0.71	U		P
7440-23-5	Sodium	128	B		P
7440-28-0	Thallium	0.62	U	W	F
7440-62-2	Vanadium	20.4		N	P
7440-66-6	Zinc	15.8		EN	P
	Cyanide	0.55	U		AS

Before: GREY

Clarity Before:

Texture: MEDIUM

After: COLORLESS

Clarity After: CLEAR

Artifacts:

nts:

4

: ESTIMATED DUE TO HIGH % DIFFERENCE ON THE SERIAL DILUTION.

FORM I - IN

3/90

01005

955790080

S59

U.S. EPA - CLP

EPA SAMPLE NO.

1
INORGANIC ANALYSIS DATA SHEET

S-0005

Lab Name: NYTEST ENVIRONMENTAL INC.

Contract: 9218749

Lab Code: 73469

Case No.: 11357

SAS No.:

SDG No.: SDG540

Matrix (soil/water): SOIL

Lab Sample ID: 135705

Level (low/med): LOW

Date Received: 02/05/92

% Solids: 81.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4510			P
7440-36-0	Antimony	5.2	U	N	P
7440-38-2	Arsenic	3.0		S*	F
7440-39-3	Barium	18.6	B	N*	P
7440-41-7	Beryllium	0.45	B		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	971			P
7440-47-3	Chromium	6.8		N*	P
7440-48-4	Cobalt	1.3	U	N	P
7440-50-8	Copper	2.8	B		P
7439-89-6	Iron	3980			P
7439-92-1	Lead	4.5			F
7439-95-4	Magnesium	151	B		P
7439-96-5	Manganese	20.6		*	P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	2.6	U	N	P
7440-09-7	Potassium	441	B		P
7782-49-2	Selenium	0.61	U	N*	F
7440-22-4	Silver	0.70	U		P
7440-23-5	Sodium	228	B		P
7440-28-0	Thallium	0.61	U	W	F
7440-62-2	Vanadium	13.4		N	P
7440-66-6	Zinc	5.4		EN	P
	Cyanide	0.67	U		AS

Color Before: YELLOW

Clarity Before:

Texture: MEDIUM

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

S-5

E : ESTIMATED DUE TO HIGH % DIFFERENCE ON THE SERIAL DILUTION.

FORM I - IN

955790081

3/90
01006 560

1
INORGANIC ANALYSIS DATA SHEET

S-0007

Lab Name: NYTEST ENVIRONMENTAL INC.

Contract: 9218749

Lab Code: 73469

Case No.: 11357

SAS No.:

SDG No.: SDG540

Matrix (soil/water): SOIL

Lab Sample ID: 135706

Level (low/med): LOW

Date Received: 02/05/92

% Solids: 56.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11800			P
7440-36-0	Antimony	40.9		N	P
7440-38-2	Arsenic	470		S*	F
7440-39-3	Barium	91.5		N*	P
7440-41-7	Beryllium	0.74	B		P
7440-43-9	Cadmium	0.72	U		P
7440-70-2	Calcium	113	B		P
7440-47-3	Chromium	192		N*	P
7440-48-4	Cobalt	88.2		N	P
7440-50-8	Copper	464			P
7439-89-6	Iron	92.0			P
7439-92-1	Lead	144			P
7439-95-4	Magnesium	622	B		P
7439-96-5	Manganese	653		*	P
7439-97-6	Mercury	4.7			CV
7440-02-0	Nickel	52.4		N	P
7440-09-7	Potassium	754	B		P
7782-49-2	Selenium	0.88	U	N*	F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	909			P
7440-28-0	Thallium	0.88	U	W	F
7440-62-2	Vanadium	24.6		N	P
7440-66-6	Zinc	630		EN	P
	Cyanide	0.87	U		AS

Color Before: BLACK

Clarity Before:

Texture: MEDIUM

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

S-7; E: ESTIMATED DUE TO HIGH % DIFFERENCE ON THE SERIAL DILUTION.

CALCIUM - 1:4 DIL

IRON - 1:4 DIL

ARSENIC AT A 80x DILUTION.



Footnotes for Target and Non Target Analyte Summary

1. The reported concentration is quantitatively qualified because the concentration is below the CRQL.
2. The value reported is less than 3X the value in the method blank. It is the policy of NJDEPE-DPFSR to negate the reported value due to probable foreign contamination unrelated to the actual sample. The end-user, however, is alerted that a reported quantity of the analyte/compound was detected.
3. The value reported is less than or equal to 3X the value in the trip/field blank. It is the policy of NJDEPE-DPFSR to negate the reported value as due to probable foreign contamination unrelated to the actual sample. The end-user, however, is alerted that a reportable quantity of the analyte/compound was detected.
4. The reported concentration is quantitatively qualified due to surrogate recovery outliers.
5. The value reported is greater than three (3) times the value in the method blank and is considered "real". However, the reported value must be quantitatively qualified "J" due to the method blank contamination. The "B" qualifier alerts the end-user to the presence of this analyte/compound in the method blank.
6. The internal standard area in the sample did not meet the QC criteria. Therefore, all compound results using this internal standard for quantitation are quantitatively estimated.



SITE NAME: American Cyanamid

NYTEST

SAMPLE MATRIX: Water (Field Blank)

955790084

T6 010
No pg 011.

TARGET & NON-TARGET ANALYTE DATA SUMMARY

NO: 11357

SITE NAME: American Cyanamid

NAME: NYTEST

SAMPLE MATRIX: Soil

FRACTION/ D.F.	SAMPLE ID	ANALYTE	METHOD BLANK CONC.	LAB REPORT CONC.	QA REPORT CONC.	QA DECISIONS	FOOTNOTE
VOA/1.0	S-1	METHYLENE CHLORIDE	2J	4BJ	4NB	NEGATED	1,2
	BSA02042575	ACETONE	2J	14BJ	14NB	NEGATED	1,3
		2-BUTANONE	10U	2J	2J	QUALIFIED	1
		BENZENE	10U	4J	4J	QUALIFIED	1
		CHLOROBENZENE	10U	6J	6J	QUALIFIED	1
		ETHYLBENZENE	10U	4J	4J	QUALIFIED	1
		XYLENE (TOTAL)	10U	7J	7J	QUALIFIED	1
		2 TICS					
BNA/4.0	+S-1	PHENOL	330U	940J	940J	QUALIFIED	1
	BSA02042575	2-METHYLPHENOL	330U	1100J	1100J	QUALIFIED	1
		4-METHYLPHENOL	330U	1400J	1400J	QUALIFIED	1
		2,4-DIMETHYLPHENOL	330U	9800	9800		
		1,2,4-TRICHLOROBENZENE	330U	290J	290J	QUALIFIED	1
		NAPHTHALENE	330U	680J	680J	QUALIFIED	1
		2-METHYLNAPHTHALENE	330U	190J	190J	QUALIFIED	1
		ACENAPHTHENE	330U	2800	2800J	QUALIFIED	6
		DIBENZOFURAN	330U	1600J	1600J	QUALIFIED	1,6
		FLUORENE	330U	3100	3100J	QUALIFIED	6
		N-NITROSODIPHENYLAMINE	330U	820J	820J	QUALIFIED	1,6
		PHENANTHRENE	330U	21000D	21000J	QUALIFIED	4,6
		ANTHRACENE	330U	6300	6300J	QUALIFIED	6
		CARBAZOLE	330U	2800	2800J	QUALIFIED	6
		DI-N-BUTYLPHTHALATE	330U	500J	500J	QUALIFIED	1,6
		FLUORANTHENE	330U	15000	15000J	QUALIFIED	6
		PYRENE	330U	14000	14000J	QUALIFIED	6
		BENZO(a)ANTHRACENE	330U	9900	9900J	QUALIFIED	6

955790085

012

T-7

		CHRYSENE	330U	12000	12000J	QUALIFIED	6
		BIS(2-ETHYLHEXYL)	140J	8500B	8500JB	QUALIFIED	5,6
		BENZO(b)FLUORANTHENE	330U	8600	8600J	QUALIFIED	6
		BENZO(k)FLUORANTHENE	330U	5800	5800J	QUALIFIED	6
		BENZO(a)PYRENE /	330U	8500	8500J	QUALIFIED	6
		INDENO(1,2,3-cd)PYRENE	330U	4900	4900J	QUALIFIED	6
		BENZO(g,h,i)PERYLENE	330U	3400	3400J	QUALIFIED	6
		21 TICS					
		UNKNOWN RT = 6.22	14000	36000JAB	36000.NB	NEGATED	2
PEST/1.0	S-1	4,4-DDD	3.3U	36	8.5		
	BSA02042575						

THE RESULT IS REPORTED FROM THE 8-FOLD DILUTION.

ALL SAMPLE RESULT QUANTIFIED IN REFERENCE TO INTERNAL STANDARD OUTLIERS, ACENAPHTHENE, PHENANTHRENE, CHRYSENE AND PERYLENE ARE CONSIDERED ESTIMATED.

955790086

013
78

TARGET & NON-TARGET ANALYTE DATA SUMMARY

11357

SITE NAME: American Cyanamid

NYTEST

SAMPLE MATRIX: Soil

ATION/ D.F.	SAMPLE ID	ANALYTE	METHOD BLANK CONC.	LAB REPORT CONC.	QA REPORT CONC.	QA DECISIONS	FOOTNOTE
QA/1.0	S-2	METHYLENE CHLORIDE	2J	5BJ	5NB	NEGATED	1,2
	BSA02042576	TOLUENE	10U	1J	1J	QUALIFIED	1
		1 TIC					
NA/1.0	S-2	1,3-DICHLOROBENZENE	330U	49J	49J	QUALIFIED	1
	BSA02042576	1,2,4-TRICHLOROBENZENE	330U	66J	66J	QUALIFIED	1
		2-METHYLNAPHTHALENE	330U	22J	22J	QUALIFIED	1
		PHENANTHRENE	330U	49J	49J	QUALIFIED	1
		DI-N-BUTYLPHTHALATE	330U	70J	70J	QUALIFIED	1
		BUTYLBENZYLPHTHALATE	330U	170J	170J	QUALIFIED	1
		BIS(2-ETHYLHEXYL) PHTHALATE	140J	1500B	1500JB	QUALIFIED	5
		21 TICS					
PEST/1.0	S-2	NONE					
	BSA02042756						

955790087

014

TARGET & NON-TARGET ANALYTE DATA SUMMARY

SE NO: 11357

SITE NAME: American Cyanamid

NAME: NYTEST

SAMPLE MATRIX: Soil

FRACTION/ D.F.	SAMPLE ID	ANALYTE	METHOD BLANK CONC.	LAB REPORT CONC.	QA REPORT CONC.	QA DECISIONS	FOOTNOTE
VOA/5.0	S-3	METHYLENE CHLORIDE	2J	11BJ	11NB	NEGATED	1,2
	BSA02042577	ACETONE	2J	150B	150NB	NEGATED	3
		2-BUTANONE	10U	18J	18J	QUALIFIED	1
		BENZENE	10U	4J	4J	QUALIFIED	1
		4-METHYL-2-PENTANONE	10U	670	670		
		2-HEXANONE	10U	34J	34J	QUALIFIED	1
		TOLUENE	10U	120	120		
		CHLOROBENZENE	10U	5J	5J	QUALIFIED	1
		ETHYLBENZENE	10U	290	290		
		XYLENE (TOTAL)	10U	980	980		
		4 TICS					
BNA/1.0	S-3	PHENOL	330U	33000D	3300		
	BSA02042577	2-METHYLPHENOL	330U	4700D	4700		
		4-METHYLPHENOL	330U	6300D	6300		
		2,4-DIMETHYLPHENOL	330U	11000D	11000		
		1,2,4-TRICHLOROBENZENE	330U	120J	120J	QUALIFIED	1
		BIS(2-ETHYLHEXYL) PHTHALATE	140J	1800B	1800JB	QUALIFIED	5,6
		21 TICS					
PEST/1.0	S-3	NONE					
	BSA02042577						

REPORTED FROM THE 6-FOLD DILUTION.

955790088

T 10
015

TARGET & NON-TARGET ANALYTE DATA SUMMARY

NO: 11357

SITE NAME: American Cyanamid

NAME: NYTEST

SAMPLE MATRIX: Soil

FRACTION/ D.F.	SAMPLE ID	ANALYTE	METHOD BLANK CONC.	LAB REPORT CONC.	QA REPORT CONC.	QA DECISIONS	FOOTNOTE
VOA/1.0	S-4	METHYLENE CHLORIDE	2J	2BJ	2NB	NEGATED	1,2
	BSA02042578	ACETONE	2J	5BJ	5NB	NEGATED	1,2,3
		1TIC					
BNA/1.0	S-4	3-NITROANILINE	330U	400J	400		
	BSA02042578	BIS(2-ETHYLHEXYL) PHTHALATE	140J	220BJ	220NB	NEGATED	1,2
		21 TICS					
		UNKNOWN RT = 6.31	14000	16000JAB	16000NB	NEGATED	2
PEST/1.0	S-4	NONE					
	BSA02042578						

955790089

016

TARGET & NON-TARGET ANALYTE DATA SUMMARY

NO: 11357

SITE NAME: American Cyanamid

NAME: NYTEST

SAMPLE MATRIX: Soil

FRACTION/ D.F.	SAMPLE ID	ANALYTE	METHOD BLANK CONC.	LAB REPORT CONC.	QA REPORT CONC.	QA DECISIONS	FOOTNOTE
VOA/1.0	S-5	METHYLENE CHLORIDE	2J	3BJ	3NB	NEGATED	1,2
	BSA02042579	ACETONE	2J	28B	28NB	NEGATED	3
		CARBON DISULFIDE	10U	1J	1J	QUALIFIED	1
		2-BUTANONE	10U	7J	7J	QUALIFIED	1
		BENZENE	10U	3J	3J	QUALIFIED	1
		CHLOROBENZENE	10U	1J	1J	QUALIFIED	1
		ETHYLBENZENE	10U	2J	2J	QUALIFIED	1
		NO TICS					
DNA/1.0	S-5	PHENOL	330U	190J	190J	QUALIFIED	1
	BSA02042579	NAPHTHALENE	330U	120J	120J	QUALIFIED	1
		2-METHYLNAPHTHALENE	330U	12J	12J	QUALIFIED	1
		3-NITROANILINE	330U	1300	1300		
		PHENANTHRENE	330U	65J	65J	QUALIFIED	1
		BIS(2-ETHYLHEXYL) PHTHALATE	140J	1500B	1500JB	QUALIFIED	5
		21 TICS					
PEST/1.0	S-5	NONE					
	BSA02042579						

T12
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955790090

TARGET & NON-TARGET ANALYTE DATA SUMMARY

NO: 11357

SITE NAME: American Cyanamid

NAME: NYTEST

SAMPLE MATRIX: Soil

FRACTION/ D.F.	SAMPLE ID	ANALYTE	METHOD BLANK CONC.	LAB REPORT CONC.	QA REPORT CONC.	QA DECISIONS	FOOTNOTE
VOA/1.0	S-7	METHYLENE CHLORIDE	2J	5BJ	5NB	NEGATED	1,2
	BSA02042581	ACETONE	2J	23B	23NB	NEGATED	3
		2-BUTANONE	10U	8J	8J	QUALIFIED	1
		4-METHYL-2-PENTANONE	10U	2J	2J	QUALIFIED	1
		TOLUENE	10U	2J	2J	QUALIFIED	1
		1 TIC					
DNA/1.0	S-7	PHENOL	330U	190J	190J	QUALIFIED	1
	BSA02042581	1,4-DICHLOROBENZENE	330U	87J	87J	QUALIFIED	1
		1,2-DICHLOROBENZENE	330U	34J	34J	QUALIFIED	1
		4-METHYLPHENOL	330U	35J	35J	QUALIFIED	1
		NAPHTHALENE	330U	41J	41J	QUALIFIED	1
		2-METHYLNAPHTHALENE	330U	31J	31J	QUALIFIED	1
		PHENANTHRENE	330U	57J	57J	QUALIFIED	1
		FLUORANTHENE	330U	64J	64J	QUALIFIED	1
		PYRENE	330U	87J	87J	QUALIFIED	1
		BIS(2-ETHYLHEXYL) PHTHALATE	140J	1400B	1400JB	QUALIFIED	5
		DI-N-OCTYLPHTHALATE	330U	66J	66J	QUALIFIED	1
		21 TICS					
		UNKNOWN RT = 6.26	14000	18000JAB	18000NB	NEGATED	2
PEST/1.0	S-7	4,4'-DDT	3.3U	7.5	7.5		
	BSA02042581						

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018

T13



GLOSSARY OF DATA QUALIFIERS

CODES RELATING TO IDENTIFICATION

(confidence concerning presence or absence of compounds):

- U = NOT DETECTED SUBSTANTIALLY ABOVE THE LEVEL
REPORTED IN LABORATORY OR FIELD BLANKS.
- R = UNRELIABLE RESULT. ANALYTE MAY OR MAY NOT
BE PRESENT IN THE SAMPLE. SUPPORTING DATA
NECESSARY TO CONFIRM RESULT.
- N = NEGATED COMPOUND WAS CONSIDERED AS NOT
PRESENT IN THE SAMPLE.

(NO CODE) = CONFIRMED IDENTIFICATION

CODES RELATING TO QUANTITATION

(can be used for both positive results and sample quantitation limits):

- J = ANALYTE PRESENT. REPORTED VALUE MAY NOT BE
ACCURATE OR PRECISE.
- UJ = THE REPORTED QUANTITATION LIMITS ARE
QUALIFIED ESTIMATED.

OTHER CODES

- Q = NO ANALYTICAL RESULT.

INORGANIC TARGET ANALYTE SUMMARY LIST

U17

ASE NO: 11357

SITE NAME: AMERICAN CYANAMID

NAME: NEI

SAMPLE MATRIX: SOIL

SAMPLE ID	LAB ID	ANALYTE	METHOD BLANK CONC.*	LAB REPORT CONC.*	QA REPORT CONC.*	QA DECISIONS	FOOTNOTE
S-1	1135701	ALUMINUM		13200	13200		
BSA03272575		ANTIMONY		16.6	16.6J	Qualified	5
		ARSENIC		161	161J	Qualified	8
		BARIUM		532	532J	Qualified	4,8
		BERYLLIUM		0.75B	0.75J	Qualified	13
		CALCIUM		43400	43400		
		CHROMIUM		115	115J	Qualified	5,8
		COBALT		9.4	9.4J	Qualified	4
		COPPER		273	273		
		IRON		24500	24500	9/14/92	
		LEAD		225	225		
		MAGNESIUM		2560	2560		
		MANGANESE		404	404J	Qualified	8
		MERCURY		16.4	16.4		
		NICKEL		47.7	47.7J	Qualified	4
		POTASSIUM		2620	2620		
		SELENIUM		2.9	2.9J	Qualified	5,8,10
		SILVER		1.0U	1.0UJ	Qualified	2
		SODIUM		1450	1450		
		VANADIUM		40.5	40.5J	Qualified	4,7
		ZINC		229	229J	Qualified	4,9
		CYANIDE		U	UJ	Qualified	Holding to analysis exceed 1 day

* mg/kg

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T19

INORGANIC TARGET ANALYTE SUMMARY LIST

018

CASE NO: 11357

SITE NAME: AMERICAN CYANAMID

LAB NAME: NEI

SAMPLE MATRIX: SOIL

SAMPLE ID	LAB ID	ANALYTE	METHOD BLANK CONC.*	LAB REPORT CONC.*	QA REPORT CONC.*	QA DECISIONS	FOOTNOT E
S-2	1135702	ALUMINUM		11300	11300		
BSA02042576		ANTIMONY		28.6B	28.6J	QUALIFIED	5
		ARSENIC		251	251J	QUALIFIED	8
		BARIUM		118	118J	QUALIFIED	4,8
		BERYLLIUM		0.41B	0.41J	QUALIFIED	13
		CALCIUM		147B	147J	QUALIFIED	13
		CHROMIUM		112	112J	QUALIFIED	5,8
		COBALT		93.3B	93.3J	QUALIFIED	4
		COPPER		221	221		
		IRON		61.2	61.2		
		LEAD		85.6	85.6		
		MAGNESIUM		1070	1070		
		MANGANESE		253	253		
		MERCURY		2.5	2.5		
		NICKEL		29.8	29.8		
		POTASSIUM		519B	519J	QUALIFIED	4
		SELENIUM		0.79U	—	REJECTED	13
		SILVER		0.90U	0.90UJ	QUALIFIED	5,8
		SODIUM		710B	710J	QUALIFIED	2
		THALLIUM		0.79U	0.79UJ	QUALIFIED	13
		VANADIUM		17.3	17.3		
		ZINC		709	709J	QUALIFIED	4,9

* mg/kg

INORGANIC TARGET ANALYTE SUMMARY LIST

019

CASE NO: 11357

SITE NAME: AMERICAN CYANAMID

LAB NAME: NEI

SAMPLE MATRIX: SOIL

SAMPLE ID	LAB ID	ANALYTE	METHOD BLANK CONC.*	LAB REPORT CONC.*	QA REPORT CONC.*	QA DECISIONS	FOOTNOT E
S-3	1135703	ALUMINUM		3900	3900		
BSA02042577		ANTIMONY		4.7U	—	REJECTED	5
		ARSENIC		2.8	2.8J	QUALIFIED	8
		BARIUM		23.1	23.1J	QUALIFIED	4,8
		BERYLLIUM		0.38B	0.38J	QUALIFIED	13
		CALCIUM		2670	2670		
		CHROMIUM		14.6	14.6J	QUALIFIED	5,8
		COBALT		2.5B	2.5J	QUALIFIED	4,13
		COPPER		24.6	24.6		
		IRON		5860	5860		
		LEAD		7.8	7.8		
		MAGNESIUM		153B	153J	QUALIFIED	13
		MANGANESE		24.1	24.1J	QUALIFIED	8
		NICKEL		3.5B	3.5J	QUALIFIED	4,13
		SELENIUM		0.56U	—	QUALIFIED	5,8
		SILVER		0.64U	0.64UJ	QUALIFIED	2
		SODIUM		455B	455J	QUALIFIED	13
		VANADIUM		11.2	11.2J	QUALIFIED	4,7
		ZINC		12.7	12.7J	QUALIFIED	4,9

* mg/kg

INORGANIC TARGET ANALYTE SUMMARY LIST

020

CASE NO: 11357

SITE NAME: AMERICAN CYANAMID

LAB NAME: NEI

SAMPLE MATRIX: SOIL

SAMPLE ID	LAB ID	ANALYTE	METHOD BLANK CONC.*	LAB REPORT CONC.*	QA REPORT CONC.*	QA DECISIONS	FOOTNOTE
S-4	1135704	ALUMINUM		8820	8820		
BSA02042578		ANTIMONY		5.3U	—	REJECTED	5
		ARSENIC		2.2	2.2J	Qualified	8
		BARIUM		61.6	61.6J	Qualified	4,8
		BERYLLIUM		0.59B	0.59J	Qualified	13
		CALCIUM		150B	150J	Qualified	13
		CHROMIUM		19.5	19.5J	Qualified	5,8
		COBALT		2.4B	2.4J	Qualified	4,13
		COPPER		12.1	12.1		
		IRON		2370	2370		
		LEAD		21.0	—	Qualified	12
		MAGNESIUM		413B	413J	Qualified	13
		MANGANESE		15.0	15.0J	Qualified	8
		NICKEL		5.1	5.1J	Qualified	4
		POTASSIUM		1640	1640		
		SELENIUM		0.63U	—	Qualified	5,8
		SILVER		0.71U	0.71UJ	Qualified	2
		SODIUM		128B	128J	Qualified	13
		VANADIUM		20.4	20.4J	Qualified	4,7
		ZINC		15.8	15.8J	Qualified	4,9

* mg/kg

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T22

INORGANIC TARGET ANALYTE SUMMARY LIST

021

CASE NO: 11357

SITE NAME: AMERICAN CYANAMID

LAB NAME: NEI

SAMPLE MATRIX: SOIL

SAMPLE ID	LAB ID	ANALYTE	METHOD BLANK CONC.*	LAB REPORT CONC.*	QA REPORT CONC.*	QA DECISIONS	FOOTNOT E
S-5	1135705	ALUMINUM		4510	4510		
BSA02042579		ANTIMONY		5.2U	—	REJECTED	5
		ARSENIC		3.0	3.0J	QUALIFIED	8
		BARIUM		18.6B	18.6J	QUALIFIED	4,8,13
		BERYLLIUM		0.45B	0.45J	QUALIFIED	13
		CALCIUM		971	971		
		CHROMIUM		6.8	6.8J	QUALIFIED	5,8
		COBALT		1.3U	1.3UJ	QUALIFIED	4
		COPPER		2.8B	2.8J	QUALIFIED	13
		IRON		3980	3980		
		LEAD		4.5	4.5		
		MAGNESIUM		151B	151J	QUALIFIED	13
		MANGANESE		20.6	20.6J	QUALIFIED	8
		NICKEL		2.6U	2.6UJ	QUALIFIED	4
		POTASSIUM		441B	441J	QUALIFIED	13
		SELENIUM		0.16U	—	REJECTED	5,8
		SILVER		0.70U	0.70UJ	QUALIFIED	2
		SODIUM		228B	228J	QUALIFIED	13
		VANADIUM		13.4	13.4J	QUALIFIED	4,7
		ZINC		5.4	5.4J	QUALIFIED	4,9

* mg/kg

NJDEPE11357

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T23

INORGANIC TARGET ANALYTE SUMMARY LIST

022

CASE NO: 11357

SITE NAME: AMERICAN CYANAMID

LAB NAME: NEI

SAMPLE MATRIX: SOIL

SAMPLE ID	LAB ID	ANALYTE	METHOD BLANK CONC.*	LAB REPORT CONC.*	QA REPORT CONC.*	QA DECISIONS	FOOTNOT E
S-7	1135706	ALUMINUM		1180	1180		
BSA02042581		ANTIMONY		40.9	40.9J	REJECTED	5
		ARSENIC		470	470J	QUALIFIED	8
		BARIUM		91.5	91.5J	QUALIFIED	4,8
		BERYLLIUM		0.74B	0.74J	QUALIFIED	13
		CALCIUM		113B	113J	QUALIFIED	13
		CHROMIUM		192	192J	QUALIFIED	5,8
		COBALT		88.2	88.2J	QUALIFIED	4
		COPPER		464	464		
		IRON		92.0	92.0		
		LEAD		144	144		
		MAGNESIUM		622B	622J	QUALIFIED	13
		MANGANESE		653	653J	QUALIFIED	8
		MERCURY		4.7U	4.7		
		NICKEL		52.4	52.4J	QUALIFIED	4
		POTASSIUM		754B	754J	QUALIFIED	13
		SELENIUM		0.88U	—	REJECTED	5,8
		SILVER		1.0U	1.70UJ	QUALIFIED	2
		SODIUM		909	909		
		VANADIUM		24.6	24.6J	QUALIFIED	4,7
		ZINC		630	630J	QUALIFIED	4,9

* mg/kg

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T24

Mr. Jim McGrady
American Cyanamid Company
P.O. Box 31
Foot of Tremley Point Road
Linden, NJ 07036

The Linden Roselle Sewerage Authority

NOTICE OF VIOLATION

IN THE MATTER OF:

OCPSF Periodic Compliance Report June 1992 - Notice of Violation

Dear Mr. McGrady,

The above report submitted on June 12, 1992 shows a violation of the OCPSF pretreatment standards for toluene at the Aerofloats process wastewater.

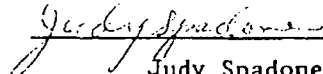
<u>Sample Date</u>	<u>Parameter</u>	<u>Monthly Average Limit</u>	<u>Result</u>
4/21/92	Toluene	28 ug/l	66.6 ug/l

You are advised that this violation classifies your facility as a "Serious Violator" under the Clean Water Enforcement Act N.J.S.A. 58:10A-1 et seq. In the future this classification will be subject to mandatory penalties when LRSA's proposed rule amendments are adopted. Also when these amendments are effective a violation must be reported as a violation within 24 hours of becoming aware of the excursion and sampling shall be repeated and results submitted within 30 days after becoming aware of the violation.

Since you have certified that the referenced process has been permanently shutdown as of April 30, 1992 repeat monitoring is not required.

DATED: October 5, 1992

FAXED: October 5, 1992


Judy Spadone
Monitoring Manager

JS/mls

INTERNATIONAL HYDRONICS CORPORATION

Date: 06/14/93

Page No. 5

PO Box 243

Rocky Hill, NJ 08553

Phone: 609-921-9216

Certification No. 18086

Client: Cytec Industries

Attn: Frank Miksza

P.O. Box 31

Linden, NJ 07036

AMERICAN CYANAMID

Job 10: Wastewater Samples

93-0519-002	
625 8W/A	TA-7 Compos
Dibenzofuran	0
2,4-Dinitrotoluene	0
4-Nitrophenol	0
Diethylphthalate	0
Fluorene	0
4-Chlorophenyl-phenyl e	0
4-Nitroaniline	0
4,6-Dinitro-2-methylphe	0
N-nitrosodiphenylamine	0
Azobenzene	0
Hexachlorobenzene	0
4-Bromophenyl-phenyleth	0
Pentachlorophenol	0
Anthracene	0
Phenanthrene	0
Carbazole	0
Di-n-butylphthalate	0
Fluoranthene	0
Benzidine	0
Pyrene	0
Butylbenzylphthalate	0
3,3'-Dichlorobenzidine	0
Chrysene	0
Benzo(a)anthracene	0
Bis(2-Ethylhexyl)phthal	24
Di-n-octylphthalate	0
Benzo(b)fluoranthene	0
Benzo(k)fluoranthene	0
Benzo(a)pyrene	0
Indeno(1,2,3-cd)pyrene	0
Dibenz(a,h)anthracene	0
Benzo(g,h,i)perylene	0

Notes:

N/A = Not Analyzed

BDL = Below Detection Limit

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BBC000011

*** SUMMARY LABORATORY ANALYSIS ***

INTERNATIONAL HYDRONICS CORPORATION

Job No. 93-0519-002

Date: 06/14/93

Page No. 3

PO Box 243

Rocky Hill, NJ 08553

Phone: 609-921-9216

Certification No. 18086

Client: Cytec Industries
P.O. Box 31
Linden, NJ 07036

Attn: Frank Miksza

AMERICAN CYANAMID

Job ID: Wastewater Samples

	93-0519-001
624 Volatiles-624	TA-7 Grab
o-Xylene	0
Styrene	0
Bromoform	0
1,1,2,2-Tetrachloroetha	0
1,3-Dichlorobenzene	0
1,4-Dichlorobenzene	0
1,2-Dichlorobenzene	0

Mercury

hexachlorocyclopentadiene ✓

dichlorodifluoromethane ✓

methyl chloride - 11 ✓

methyl bromide - 11 ✓

hydrogen sulfide detected

Notes:

N/A = Not Analyzed

BDL = Below Detection Limit

955790103

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

INTERNATIONAL HYDRONICS CORPORATION

NJDEP Lab. No. 18086

Client: ~~AMERICAN CYANAMID CO~~
Cytec Industries

Sample ID: TA #1 Grab 8/18/93

Lab Sample ID: 93-0833-002

Lab File ID: V124A46A

Matrix: Water

% Solids:

Column: Cap

Date Received: 08/18/93

Date Analyzed: 09/15/93

Sample Amount: 0.5000 ml

Dilution Factor: 1

METHOD 624 DETECTION LEVEL AS INDICATED

CONCENTRATION UNITS: µg/L

VOLATILE COMPOUND	QUANTITATION LIMIT	RESULT	Q
Chloromethane	29		U
Vinyl Chloride	13		U
Bromomethane	10		U
Chloroethane	13		U
Trichlorofluoromethane	19	14	J
Acrolein	1600		U
1,1-Dichloroethene	30		U
Acetone	36	430	
Carbon Disulfide	12		U
Methylene Chloride	49	77	B
Acrylonitrile	100		U
1,2-Dichloroethene 2/100	9		U
1,1-Dichloroethane	9		U
cis-1,2-Dichloroethene	4		U
2-Butanone	16		U
Chloroform	5		U
Trans-1,2-Dichloroethane	11		U
1,1,1-Trichloroethane	12		U
Carbon Tetrachloride	17		U
Benzene	10		U
Trichloroethene	12		U
1,2-Dichloropropane	10		U
Bromodichloromethane	17		U
2-Chloroethylvinyl Ether	200		U
trans-1,3-Dichloropropene	10		U
cis-1,3-Dichloropropene	18		U
1,1,2-Trichloroethane	16		U
Dibromochloromethane	11		U
2-Hexanone	17		U
Toluene	9	610	
Tetrachloroethene	13		U
4-Methyl-2-pentanone	35		U
Chlorobenzene	10		U
Ethyl Benzene	10		U
m,p-Xylene	11		U
o-Xylene	10	32	
Styrene	9		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

INTERNATIONAL HYDRONICS CORPORATION		NJDEP Lab. No. 18086
AMERICAN CYANAMID CO		
Client: Cytec Industries	Sample ID: TA-1 Grab 11-17-93	
Lab Sample ID: 93-1165-002		
Lab File ID: V132A48A	Date Received: 11/17/93	
Matrix: Water	Date Analyzed: 12/03/93	
* Solids:	Sample Amount: 0.1000 ml	
Column: Cap	Dilution Factor: 1	

METHOD 624 DETECTION LEVEL AS INDICATED
CONCENTRATION UNITS: µg/L

VOLATILE COMPOUND	QUANTITATION LIMIT	RESULT	Q
Chloromethane	150		U
Vinyl Chloride	63		U
Bromomethane	51		U
Chloroethane	63		U
Trichlorofluoromethane	96		U
Acrolein	8000		U
1,1-Dichloroethene	150		U
Acetone	180	2200	
Carbon Disulfide	58		U
Methylene Chloride	250	530	B
Acrylonitrile	510		U
1,2-Dichloroethene	44		U
1,1-Dichloroethane	46		U
cis-1,2-Dichloroethene	20		U
2-Butanone	78		U
Chloroform	27	300	
Trans-1,2-Dichloroethane	53		U
1,1,1-Trichloroethane	60		U
Carbon Tetrachloride	83		U
Benzene	50		U
Trichloroethene	61		U
1,2-Dichloropropane	48		U
Bromodichloromethane	84		U
2-Chloroethylvinyl Ether	990		U
trans-1,3-Dichloropropene	52		U
cis-1,3-Dichloropropene	92		U
1,1,2-Trichloroethane	78		U
Dibromochloromethane	56		U
2-Hexanone	87		U
Toluene	46	650	
Tetrachloroethene	65		U
4-Methyl-2-pentanone	180		U
Chlorobenzene	51		U
Ethyl Benzene	52		U
m,p-Xylene	53		U
o-Xylene	48		U
Styrene	44		U

LRSA

Memorandum

Date : 3/8/94

To : Gary G. Fare, Executive Director

From : Raymond G. Tomaszewski, Hearing Officer

Re : Cytec Industries, Inc.
Hearing of February 25, 1994 - Report and Recommendation

On February 3, 1994 Cytec Industries was served with a Notice to Show Cause why enforcement action should not be taken for a permit violation set forth in the Notice.

The Show Cause Hearing was held on February 25, 1994 at 10:00AM at the Authority Offices and in accordance with Section 6.5 of the Authority's Rules and Regulations.

Jeanne M. Burnell, Ph.D., Plant Manager and Angela Dohl, Environmental Regulatory Services Supervisor appeared for Cytec Industries.

Judy Spadone, Monitoring Manager appeared for the Authority.

Evidence was introduced by the Monitoring Manager to show that:

- . Cytec was issued discharge permit #032
- . That permit contains a monthly average limit for oil and grease of 300 mg/l.
- . Cytec reported a monthly average of 471 mg/l for the month of November 1993 (November 1993 Discharge Monitoring Report)
- . The value reported for oil and grease exceeds the limit by more than 40%.

The representatives of Cytec Industries offered no evidence to contradict the above or evidence of upset or laboratory error. They pointed out that the November 1993 value for oil and grease was completely anomalous, comparing it to 111.5 mg/l for October 1993 and 66 mg/l for December 1993. They could only speculate that perhaps there was some interference in the analysis. However, all the sample was consumed in the analysis and only one sample was taken during the month.

955790107

BBC000012

Memorandum
Re: Cytec Industries Hearing

3/8/94
Page Two

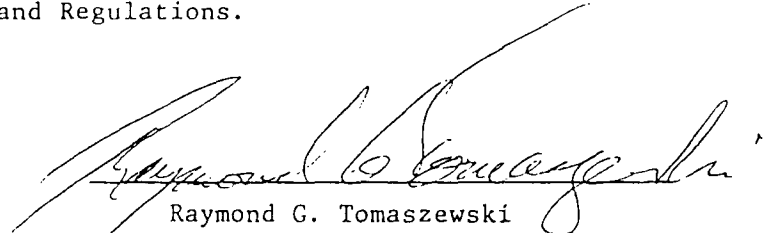
Findings

I find that Cytec Industries violated its discharge permit for the month of November 1993 by exceeding the monthly average limit for oil and grease by more than 40%, and that the violation constitutes a "serious violation" under the Authority's Rules and Regulations (Section 1.2, Definitions).

Recommendations

To assess a minimum mandatory penalty of \$1,000 for the violation of oil and grease limitations for November 1993.

To proceed in the assessment of this civil administrative penalty under Section 6.3.A(6) of the Rules and Regulations.



Raymond G. Tomaszewski
Hearing Officer

RGT/mlm

cc: Judy Spadone

955790108



Severn Trent Laboratories
628 Route 10
Whippany NJ 07981
Tel: (973) 428-8181
Fax: (973) 428-5222

REGULATORY FORMAT DATA PACKAGE

SAMPLING DATE: JANUARY 26, 1999

CYTEC INDUSTRIES

Project: CYTEC WARNERS/440.52.021

PREPARED BY:

SEVERN TRENT LABORATORIES

(CERTIFICATION NUMBER 14530)

STL JOB No. 20990-90352

VOLUME 1 of 1

Other Laboratory Locations:

- 149 Ringway Road, North Delford MA 01862
- 16203 Park Row, Suite 110, Houston TX 77084
- 200 Monroe Turnpike, Monroe CT 06468

- 120 Southcenter Court, Suite 300, Morrisville NC 27560
- 315 Fullerton Avenue, Newburgh NY 12550
- 11 East Olive Road, Pensacola FL 32514
- Westside Express Park, 53 Southwestern Road, Westfield MA 01085

a part of

955790110

132

BBC000013



FEBRUARY 17, 1999

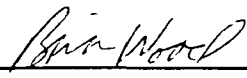
20990-90352
BLASLAND BOUCK & LEE, INC.
8 SOUTH RIVER ROAD
CRANBURY , NJ 08512

ATTENTION: GEOFF BANDOLA

The following samples were received for analysis by STL-NJ (Cert.#14530). These samples were received on and labeled as follows:

<u>STL Sample No.:</u>	<u>Client ID:</u>	<u>Date Received</u>
90352001	BACK1S	01/28/99
90352002	BACK2S	01/28/99
90352003	BACK2D	01/28/99
90352004	BACK2DMS	01/28/99
90352005	BACK2DMSD	01/28/99
90352006	DPG-2S	01/28/99
90352007	DPG-2D	01/28/99
90352008	BD012699	01/28/99
90352009	FB012699	01/28/99
90352010	BACK2R	01/28/99
90352011	LAP2S	01/28/99
90352012	LAP2D	01/28/99
90352013	LAP2R	01/28/99
90352014	FB012799	01/28/99
90352015	DPG2R	01/28/99
90352016	TB012799	01/28/99
90352017	BACK1S-D	01/28/99
90352018	BACK2S-D	01/28/99
90352019	BACK2D-D	01/28/99
90352020	BACK2DMS-D	01/28/99
90352021	BACK2DMSD-D	01/28/99
90352022	DPG-2S-D	01/28/99
90352023	DPG-2D-D	01/28/99
90352024	BD012699-D	01/28/99
90352025	FB012699-D	01/28/99

DATA RELEASE AUTHORIZED BY:



Brian W. Wood
Technical Manager

955790111



FEBRUARY 17, 1999

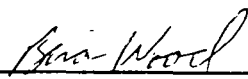
20990-90352
BLASLAND BOUCK & LEE, INC.
8 SOUTH RIVER ROAD
CRANBURY , NJ 08512

ATTENTION: GEOFF BANDOLA

The following samples were received for analysis by STL-NJ
(Cert.#14530). These samples were received on and labeled as follows:

<u>STL Sample No.:</u>	<u>Client ID:</u>	<u>Date Received</u>
90352026	BACK2R-D	01/28/99
90352027	LAP2S-D	01/28/99
90352028	LAP2D-D	01/28/99
90352029	LAP2R-D	01/28/99
90352030	FB012799-D	01/28/99
90352031	DPG2R-D	01/28/99

DATA RELEASE AUTHORIZED BY:



Brian W. Wood
Technical Manager

955790112



Committed To *Your* Success

Severn Trent Laboratories
628 Route 10
Whippany NJ 07981

Tel: (973) 428-8181
Fax: (973) 428-5222

STL - NJ Lab Certifications

STL - NJ possesses the following regulatory certifications and is currently certified to perform analysis in accordance with regulations pertaining to these certifications. Certificates are on file at the laboratory.

State/Agency Certification	Lab ID Number
CLP Organics Contract	68D50011
Connecticut	PH0722
Maryland	195
New Jersey	14530
New York	10997
North Carolina	339
Pennsylvania	68-355
Rhode Island	178
West Virginia	258
USDA Permit	S-3295 Revised
Delaware	NJ323

Last Updated: 7/15/98

Other Laboratory Locations:

- 149 Ringway Road, North Andover MA 01862
- 16203 Park Row, Suite 110, Houston TX 77064
- 200 Monroe Turnpike, Monroe CT 06468

- 120 Southcenter Court, Suite 300, Morrisville NC 27560
- 315 Fullerton Avenue, Newburgh NY 12550
- 11 East Olive Road, Pensacola FL 32514
- Westfield Executive Park, 53 Southwestern Road, Westfield MA 01085

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955790113

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Severn Trent Laboratories

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955790115

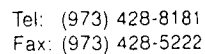
No. 54117

CHAIN OF CUSTODY

FIELD BOOK:

Pg 1 of 2

1 Client: <u>BBL</u>	# OF CONTAINERS	14 Bill To: <u>Cytec Industries Inc.</u>	For Lab Use Only					
2 Project Name/no.: <u>Cytec WARNERS / 440.52.021</u>		PO# <u>440.52.021</u>	Job No. <u>90352</u>					
3 Client Contact: <u>Guff Bando</u>		15 ANALYSIS REQUIRED	Quote No. _____					
4 STL Contact: <u>DEANIVA POSTER</u>			# of Coolers: _____					
5 TAT: 1wk, 2wk, <u>3wk</u> , OTHER _____			Cooler Temp.(s) _____					
6 Proj. Type: NJPDES, NPDES, ISRA, CLP, CERCLA, RCRA, UST, <u>ACOMOA</u> , OTHER _____			Custody Seal #(s) _____					
7 Protocol: CLP, SW846, <u>EPA 600</u> , DW, OTHER _____			Date Due: _____					
8 Reporting Type: <u>NJ Reg Format</u> , <u>NJ Reduced Format</u> , CLP, Level II, Level I (Data Sum), Other _____								
9 Client ID (10 CHAR) (10) Date (11) Time (12) Mtx								
B A C K 1 5	01/26/99	9:20	Ag	5	001	017	VOA	UNPRESERVED
B A C K 2 S	01/26/99	10:35		5	002	018	VOA	UNPRESERVED
B A C K 2 D	01/26/99	11:15		5	003	019		
B A C K 2 D M S	01/26/99	11:15		5	004	020		
B A C K 2 D M S D	01/26/99	11:15		5	005	021	VOA	UNPRESERVED
O P G - 2 S	01/26/99	12:35		5	006	022	VOA	UNPRESERVED
O P G - 2 O	01/26/99	13:30		5	007	023		
B D D 1 2 6 9 9	01/26/99			5	008	024	VOA	UNPRESERVED
F B O 1 2 6 9 9	01/26/99	15:05		5	009	025		
B A C K 2 R	01/27/99	12:50		5	010	026		
L A P 2 S	01/27/99	12:35		5	011	027		
L A P 2 D	01/27/99	12:10		5	012	028		
L A P 2 R	01/27/99	13:05		5	013	029		
F B O 1 2 7 9 9	01/27/99	14:30		5	014	030		
16 COMMENTS: (Please include hazards on site.) <u>Analyze VOA for Carbon Disulfide, Methylene Chloride, Acetone, Benzene, chlorobenzene, xylenes</u> <u>Analyze Metals for Aluminum, Arsenic, Iron, Lead, Manganese, Sodium</u>								
17 Sampled By: <u>Guff Bando</u> BBL		Signature: <u>Guff Bando</u>		Custody Seal # (s)		Date/Time		
Received By: <u>JAMES SANDLER</u> STL		Signature: <u>JAMES SANDLER</u>				1-28-99 15:20		
Relinquished By: <u>JAMES SANDLER</u> STL		Signature: <u>JAMES SANDLER</u>				1-28-99 15:40		
Received By: <u>Ed Dippel</u>		Signature: <u>Ed Dippel</u>				1/28/99 15:40		
Relinquished By: _____		Signature: _____				/ /		
Received By: _____		Signature: _____				/ /		
Mtx = Matrix of Sample. (AI=Air, AQ=Aqueous, LE=Leachate, ML=Misc Liquid, MS=Misc Solids, OIL, SE=Sediment, SL=Sludge, SO=Soil)								



No. 56, 1901

FIELD BOOK:

Pg 2 of 2

[illegible]

2000

**SEVERN TRENT LABORATORIES, Inc. - NEW JERSEY
SAMPLE RECEIPT VERIFICATION FORM**

JOB NUMBER: 90352 CLIENT BBL DATE RECEIVED: 1/28/89

OF SAMPLES 31 # OF COOLERS 2
CUSTODY SEALS: ~~PRESENT~~ ABSENT ~~INTACT~~ BROKEN TEMPERATURE BLANK PRESENT: YES NO

COOLER TEMP/S ° C 4.1, 4.3 COOLER OUTSIDE 2-6 ° C PRESERVED: ICE/BLUE-ICE NONE
IF OUTSIDE TEMP RANGE - WERE SAMPLES RECEIVED LESS THAN 4 HOURS FROM COLLECTION? YES NO

CHAIN OF CUSTODY ~~PRESENT~~ ABSENT PROPERLY SIGNED, DATED, TIME: YES NO
SAMPLE TAGS: PRESENT ~~ABSENT~~ RECEIVED BY: DRIVER SL IF SHIPPED AIRBILL PRESENT #

COOLER RADIOACT. SCREEN BELOW 0.50 uR/hr YES NO (INFORM SAFETY OFFICER IMMED.)

YES NO SAMPLE BOTTLES INTACT
YES NO PROPER CONTAINERS PER ANALYSIS USED
YES NO SAMPLE LABELS INTACT
YES NO LABELS COMPLETE AND LEGIBLE (ID, DATE, TIME, SIGNATURE, PRESERVATIVE)
YES NO SAMPLES RECEIVED WITHIN HOLDING TIME
YES NO SAMPLES PROPERLY PRESERVED
YES NO NO BUBBLES PRESENT VOA WATER MATRIX NA
YES NO SUFFICIENT SAMPLE VOLUME RECEIVED
YES NO DRINKING H2O/TREATED H2O - CHECKED FOR RESIDUAL CHLORINE NA
(DOCUMENT ON pH VERIFICATION LOG FORM)

SL INTIAL 1/28 DATE - RUSH REPORT ISSUED BY NA
SL INTIAL 1/28 DATE - pH ANALYSIS PERFORMED BY NA
 INTIAL 1/28 DATE - % MOISTURE PERFORMED BY NA
 INTIAL 1/28 DATE - SAMPLE COMPOSITE PERFORMED BY NA

NOTE AND ITEMIZE BY SAMPLE AFFECTED, DISCREPANCIES AND NONCONFORMANCES FOUND:

PROJECT MANAGER INFORMED OF DISCREPANCIES: INTIALS DATE NA

SUBCONTRACTING OF ANALYSIS REQUIRED YES NO SUB COC COMPLETED YES NO NA
SUBCONTRACTED SAMPLES SHIPPED YES NO CARRIER USED

SAMPLE RECEIPT, LABELING AND STORAGE PROCEDURES PERFORMED BY:

FINAL INSPECTION

BOTTLES CORRECTLY LABELED
INTERNAL CHAIN OF CUSTODY INITIATED
ALL SIGNATURES AND DATES COMPLETE

YES NO REVIEWED BY DATE: 1/28/89
YES NO
YES NO

CLIENT INFORMED OF DISCREPANCIES/NONCONFORMANCES BY PM DATE TIME

NAME CLIENT REPRESENTATIVE INFORMED METHOD: PHONE FAX

CORRECTIVE ACTION REQUESTED BY CLIENT:

CORRECTIVE ACTION TAKEN:

PROJECT MANAGER APPROVED VERIFICATION FORM COMPLETE: DATE: 1/28/89

Print name DDick

955790117



ORGANICS ANALYSIS
DATA AND SAMPLE QUALIFIERS

Severn Trent Laboratories
628 Route 10
Whippany NJ 07981
Tel: (973) 428-8181
Fax: (973) 428-5222

DATA QUALIFIERS:

- U - Indicates that the compound was analyzed for but not detected.
- J - This qualifier indicates an estimated concentration. This qualifier is used (1) when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL or PQL but greater than zero, and (3) when the retention time data indicate the presence of a compound that meets the Pesticide/Aroclor identification criteria, and the result is less than the CRQL or PQL but greater than zero.
- B - This qualifier is used when the analyte is found in a method blank as well as the sample. It indicates possible sample contamination and warns the user to use caution when applying the results of this analyte.
- E - Exceeds calibration curve
- A - Indicates that a tentatively identified compound is a suspected Aldol-condensation product.
- N - Indicates presumptive evidence of a compound. This qualifier is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all tentatively identified compound results. For generic classification of a tentatively identified compound, such as chlorinated hydrocarbon, the N code is not used.
- D - This qualifier identifies all compounds identified in an analysis at a secondary dilution factor.
- P - Indicates that the quantitative results from the two GC columns differed by more than 25 percent.

SAMPLE QUALIFIERS:

- DL - Indicates that the analysis was performed at a secondary dilution.
- RE - Rerun - Indicates that the analysis is a reinjection or a reextraction and reanalysis, usually due to a failed QC element in the initial analysis.

Other Laboratory Locations:

- 149 Rensselaer Road, North Andover MA 01862
- 16203 Park Row, Suite 110, Houston TX 77064
- 200 Monroe Enterprise, Monroe CT 06468

- 120 Southcoast Court, Suite 300, Morrisville NC 27560
- 315 Fulton Avenue, Newburgh NY 12550
- 11 Carl Olive Road, Pennsville FL 32514
- Westhill Corporate Park, 51 Southgate Road, Westhill MA 01085

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955790118



Severn Trent Laboratories
628 Route 10
Whippany NJ 07981
Tel: (973) 428-8181
Fax: (973) 428-5222

METALS ANALYSIS
DATA QUALIFIERS

U - Result is below the Method Detection Limit (MDL)

B - Result is between the MDL and the RL (Reporting Limit). (Note that this flag does not have the same meaning as in Organics analysis).

CP-TR - Trace Inductively Coupled Argon Plasma.

ICAP - Inductively Coupled Argon Plasma.

FAA 6211

FAA 6398 - Graphite Furnace Atomic Absorption.

CV - Cold Vapor Atomic Absorption.

NR - Not Requested.

Other Laboratory Locations:

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- 16203 Park Row, Suite 110, Houston TX 77084
- 200 Monroe Turnpike, Monroe CT 06468

- 120 Southcenter Court, Suite 300, Morrisville NC 27560
- 315 Fulton Avenue, Newburgh NY 12550
- 11 East Olive Road, Pensacola FL 32514
- Westfield Executive Park, 53 Southampton Road, Westfield MA 01085

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955790119

Post Spike Report

000027

STL Job No.: 90352

STL Sample No.: 90352003

Client ID: BACK2D

Units: ug/l

Batch: WG18747

Analyte	Original Sample Result	Spike Added	Spike Result	% Recovery
Aluminum	71.66	5,000.00	6,154.50	121.60
Arsenic	7.74	250.00	287.19	111.70
Iron	15,733.00	5,000.00	19,240.00	70.00
Lead	3.48	250.00	238.14	93.80
Manganese	602.40	250.00	799.10	78.80
Sodium	3,976,500.00	250,000.00	4,187,250.00	84.00

STL Sample No.: 90352019

Client ID: BACK2D-D

Units: ug/l

Batch: WG18748

Analyte	Original Sample Result	Spike Added	Spike Result	% Recovery
Aluminum	35.65	5,000.00	6,285.00	125.10
Arsenic	9.35	250.00	300.86	116.70
Iron	12,935.50	5,000.00	17,134.00	84.00
Lead	1.69	250.00	246.10	97.70
Manganese	690.85	250.00	902.30	84.40
Sodium	4,739,500.00	250,000.00	4,759,500.00	8.00

955790120

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000037

BACK1S

Lab Name: STL-NJ

Job No. : 90352

Matrix: (soil/water)Water

Sample wt/vol: 5 (g/mL)ml

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624 ID: 0.32 (mm)

Soil Extract Volume: (uL)

Lab Sample ID: 90352001

Lab File ID: I0984

Date Received: 01/28/99

Date Analyzed: 02/01/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg)ug/l

Q

75-09-2	Methylene Chloride	5.0	
67-64-1	Acetone	1.6	U
75-15-0	Carbon Disulfide	0.56	U
71-43-2	Benzene	0.26	U
108-90-7	Chlorobenzene	0.58	U
1330-20-7	Total Xylenes	1.5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000050

DPG-2S

Lab Name: STL-NJ

Job No. : 90352

Matrix: (soil/water) Water

Lab Sample ID: 90352006

Sample wt/vol: 5 (g/mL) ml

Lab File ID: I0987

Level: (low/med) LOW

Date Received: 01/28/99

% Moisture: not dec.

Date Analyzed: 02/01/99

GC Column: DB-624 ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/l Q

75-09-2	Methylene Chloride	4.8	
67-64-1	Acetone	1.6	U
75-15-0	Carbon Disulfide	0.56	U
71-43-2	Benzene	0.26	U
108-90-7	Chlorobenzene	0.58	U
1330-20-7	Total Xylenes	1.5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000054

DPG-2D

Lab Name: STL-NJ

Job No. : 90352

Matrix: (soil/water)Water

Sample wt/vol: 5 (g/mL)ml

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624 ID: 0.32 (mm)

Soil Extract Volume: (uL)

Lab Sample ID: 90352007

Lab File ID: I1002

Date Received: 01/28/99

Date Analyzed: 02/01/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg)ug/l

Q

75-09-2	Methylene Chloride	2.6	
67-64-1	Acetone	1.6	U
75-15-0	Carbon Disulfide	12	
71-43-2	Benzene	77	
108-90-7	Chlorobenzene	9.0	
1330-20-7	Total Xylenes	8.5	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000061

BD012699

Lab Name: STL-NJ

Job No. : 90352

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/mL) ml

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624 ID: 0.32 (mm)

Soil Extract Volume: (uL)

Lab Sample ID: 90352008

Lab File ID: I1003

Date Received: 01/28/99

Date Analyzed: 02/01/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/l Q

75-09-2	Methylene Chloride	5.4	
67-64-1	Acetone	1.6	U
75-15-0	Carbon Disulfide	6.7	
71-43-2	Benzene	47	
108-90-7	Chlorobenzene	5.5	
1330-20-7	Total Xylenes	5.3	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000068

FB012699

Lab Name: STL-NJ

Job No. : 90352

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/mL) ml

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624 ID: 0.32 (mm)

Soil Extract Volume: (uL)

Lab Sample ID: 90352009

Lab File ID: I0999

Date Received: 01/28/99

Date Analyzed: 02/01/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/l

Q

75-09-2	Methylene Chloride	5.3	
67-64-1	Acetone	5.4	
75-15-0	Carbon Disulfide	0.56	U
71-43-2	Benzene	0.26	U
108-90-7	Chlorobenzene	0.58	U
1330-20-7	Total Xylenes	1.5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000072

BACK2R

Lab Name: STL-NJ

Job No. : 90352

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/mL) ml

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624 ID: 0.32 (mm)

Soil Extract Volume: (uL)

Lab Sample ID: 90352010

Lab File ID: I0998

Date Received: 01/28/99

Date Analyzed: 02/01/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/l

Q

75-09-2	Methylene Chloride	2.7	
67-64-1	Acetone	11	
75-15-0	Carbon Disulfide	0.56	U
71-43-2	Benzene	0.26	U
108-90-7	Chlorobenzene	0.58	U
1330-20-7	Total Xylenes	1.5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000076

LAP2S

Lab Name: STL-NJ

Job No. : 90352

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/mL) ml

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624 ID: 0.32 (mm)

Soil Extract Volume: (uL)

Lab Sample ID: 90352011

Lab File ID: I0989

Date Received: 01/28/99

Date Analyzed: 02/01/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/l</u>	Q
---------	----------	---	---

75-09-2	Methylene Chloride	4.1	
67-64-1	Acetone	2.8	
75-15-0	Carbon Disulfide	0.56	U
71-43-2	Benzene	0.26	U
108-90-7	Chlorobenzene	0.58	U
1330-20-7	Total Xylenes	1.5	U

000080

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

LAP2D

Lab Name: STL-NJJob No. : 90352Matrix: (soil/water) WaterSample wt/vol: 5 (g/mL) mlLevel: (low/med) LOW% Moisture: not dec. GC Column: DB-624 ID: 0.32 (mm)Soil Extract Volume: (uL)Lab Sample ID: 90352012Lab File ID: I0994Date Received: 01/28/99Date Analyzed: 02/01/99Dilution Factor: 10.0Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/l

Q

75-09-2	Methylene Chloride	55	
67-64-1	Acetone	90	
75-15-0	Carbon Disulfide	72	
71-43-2	Benzene	38	
108-90-7	Chlorobenzene	6200	E
1330-20-7	Total Xylenes	15	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000091

LAP2R

Lab Name: STL-NJ

Job No. : 90352

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/mL) ml

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624 ID: 0.32 (mm)

Soil Extract Volume: (uL)

Lab Sample ID: 90352013

Lab File ID: I0990

Date Received: 01/28/99

Date Analyzed: 02/01/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/l

Q

75-09-2	Methylene Chloride	5.5	
67-64-1	Acetone	1.6	U
75-15-0	Carbon Disulfide	0.56	U
71-43-2	Benzene	0.26	U
108-90-7	Chlorobenzene	0.58	U
1330-20-7	Total Xylenes	1.5	U

Metals Analysis Results

000106

Prepared For:
Cytec Industries

STL Sample No.: 90352001
Matrix: Water

Units: ug/l

Client ID: BACK1S
Sample Date: 01/26/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 16:14	56.8	B	7.30	100.0	1.00	WG18747
7440-38-2	Arsenic	ICP-TR	02/05/99 16:14	5.29		1.53	4.00	1.00	WG18747
7439-89-6	Iron	ICP-TR	02/05/99 16:14	1,050		17.8	50.0	1.00	WG18747
7439-92-1	Lead	ICP-TR	02/05/99 16:14	0.810	B	0.525	1.50	1.00	WG18747
7439-96-5	Manganese	ICP-TR	02/05/99 16:14	164		0.211	7.50	1.00	WG18747
7440-23-5	Sodium	ICP-TR	02/09/99 16:46	258,000		453	12,500	5.00	WG18747

Qualifiers:

U = Undetected below MDL
B = Detected between MDL and RL*

*RL = Reporting Limit

955790130

000107

Metals Analysis Results

Prepared For:
Cytec Industries

STL Sample No.: 90352002

Matrix: Water

Units: ug/l

Client ID: BACK2S

Sample Date: 01/26/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 16:20	449		7.30	100.0	1.00	WG18747
7440-38-2	Arsenic	ICP-TR	02/05/99 16:20	2.07	B	1.53	4.00	1.00	WG18747
7439-89-6	Iron	ICP-TR	02/05/99 16:20	3,090		17.8	50.0	1.00	WG18747
7439-92-1	Lead	ICP-TR	02/05/99 16:20	14.4		0.525	1.50	1.00	WG18747
7439-96-5	Manganese	ICP-TR	02/05/99 16:20	2,620		0.211	7.50	1.00	WG18747
7440-23-5	Sodium	ICP-TR	02/09/99 16:52	377,000		905	25,000	10.00	WG18747

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790131

Metals Analysis Results

000108

Prepared For:
Cytec Industries

STL Sample No.: 90352003

Matrix: Water

Units: ug/l

Client ID: BACK2D

Sample Date: 01/26/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 16:26	71.7	B	7.30	100.0	1.00	WG18747
7440-38-2	Arsenic	ICP-TR	02/05/99 16:26	7.75		1.53	4.00	1.00	WG18747
7439-89-6	Iron	ICP-TR	02/05/99 16:26	15,700		17.8	50.0	1.00	WG18747
7439-92-1	Lead	ICP-TR	02/05/99 16:26	3.48		0.525	1.50	1.00	WG18747
7439-96-5	Manganese	ICP-TR	02/05/99 16:26	602		0.211	7.50	1.00	WG18747
7440-23-5	Sodium	ICP-TR	02/09/99 16:58	3,977,000		4.530	125,000	50.00	WG18747

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790132

Metals Analysis Results

000109

Prepared For:
Cytec Industries

STL Sample No.: 90352004MS

Matrix: Water

Units: ug/l

Client ID: BACK2DMSMS

Sample Date: 01/26/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 16:38	6,350		7.30	100.0	1.00	WG18747
7440-38-2	Arsenic	ICP-TR	02/05/99 16:38	297		1.53	4.00	1.00	WG18747
7439-89-6	Iron	ICP-TR	02/05/99 16:38	19,600		17.8	50.0	1.00	WG18747
7439-92-1	Lead	ICP-TR	02/05/99 16:38	241		0.525	1.50	1.00	WG18747
7439-96-5	Manganese	ICP-TR	02/05/99 16:38	910		0.211	7.50	1.00	WG18747
7440-23-5	Sodium	ICP-TR	02/09/99 17:09	4,671,000		4,530	125,000	50.00	WG18747

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790133

Metals Analysis Results

000110

Prepared For:
Cytec Industries

STL Sample No.: 90352005DUP
Matrix: Water

Units: ug/l

Client ID: BACK2DMSDDUP
Sample Date: 01/26/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 16:32	70.1	B	7.30	100.0	1.00	WG18747
7440-38-2	Arsenic	ICP-TR	02/05/99 16:32	8.12		1.53	4.00	1.00	WG18747
7439-89-6	Iron	ICP-TR	02/05/99 16:32	14,200		17.8	50.0	1.00	WG18747
7439-92-1	Lead	ICP-TR	02/05/99 16:32	4.14		0.525	1.50	1.00	WG18747
7439-96-5	Manganese	ICP-TR	02/05/99 16:32	556		0.211	7.50	1.00	WG18747
7440-23-5	Sodium	ICP-TR	02/09/99 17:03	3,456,000		4,530	125,000	50.00	WG18747

Qualifiers:

U = Undetected below MDL
B = Detected between MDL and RL*

*RL = Reporting Limit

955790134

Metals Analysis Results

000111

Prepared For:
Cytec Industries

STL Sample No.: 90352006

Matrix: Water

Units: ug/l

Client ID: DPG-2S

Sample Date: 01/26/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 17:14	28.9	B	7.30	100.0	1.00	WG18747
7440-38-2	Arsenic	ICP-TR	02/05/99 17:14	4.38		1.53	4.00	1.00	WG18747
7439-89-6	Iron	ICP-TR	02/05/99 17:14	328		17.8	50.0	1.00	WG18747
7439-92-1	Lead	ICP-TR	02/05/99 17:14	0.525	U	0.525	1.50	1.00	WG18747
7439-96-5	Manganese	ICP-TR	02/05/99 17:14	83.5		0.211	7.50	1.00	WG18747
7440-23-5	Sodium	ICP-TR	02/09/99 17:33	2,192,000		2,260	62,500	25.00	WG18747

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790135

Metals Analysis Results

000112

Prepared For:
Cytec Industries

STL Sample No.: 90352007

Matrix: Water

Units: ug/l

Client ID: DPG-2D

Sample Date: 01/26/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 17:20	54.6	B	7.30	100.0	1.00	WG18747
7440-38-2	Arsenic	ICP-TR	02/05/99 17:20	1.53	U	1.53	4.00	1.00	WG18747
7439-89-6	Iron	ICP-TR	02/05/99 17:20	528		17.8	50.0	1.00	WG18747
7439-92-1	Lead	ICP-TR	02/05/99 17:20	0.525	U	0.525	1.50	1.00	WG18747
7439-96-5	Manganese	ICP-TR	02/05/99 17:20	551		0.211	7.50	1.00	WG18747
7440-23-5	Sodium	ICP-TR	02/09/99 17:39	4,068,000		4,530	125,000	50.00	WG18747

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790136

Metals Analysis Results

000113

Prepared For:
Cytec Industries

STL Sample No.: 90352008
Matrix: Water

Units: ug/l

Client ID: BD012699
Sample Date: 01/26/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 17:26	69.6	B	7.30	100.0	1.00	WG18747
7440-38-2	Arsenic	ICP-TR	02/05/99 17:26	3.10	B	1.53	4.00	1.00	WG18747
7439-89-6	Iron	ICP-TR	02/05/99 17:26	633		17.8	50.0	1.00	WG18747
7439-92-1	Lead	ICP-TR	02/05/99 17:26	0.525	U	0.525	1.50	1.00	WG18747
7439-96-5	Manganese	ICP-TR	02/05/99 17:26	672		0.211	7.50	1.00	WG18747
7440-23-5	Sodium	ICP-TR	02/09/99 17:57	4,791,000		4,530	125,000	50.00	WG18747

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790137

Metals Analysis Results

000114

Prepared For:
Cytec Industries

STL Sample No.: 90352009

Matrix: Water

Units: ug/l

Client ID: FB012699

Sample Date: 01/26/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 17:32	10.6	B	7.30	100.0	1.00	WG18747
7440-38-2	Arsenic	ICP-TR	02/05/99 17:32	1.53	U	1.53	4.00	1.00	WG18747
7439-89-6	Iron	ICP-TR	02/05/99 17:32	18.0	B	17.8	50.0	1.00	WG18747
7439-92-1	Lead	ICP-TR	02/05/99 17:32	0.525	U	0.525	1.50	1.00	WG18747
7439-96-5	Manganese	ICP-TR	02/05/99 17:32	0.710	B	0.211	7.50	1.00	WG18747
7440-23-5	Sodium	ICP-TR	02/05/99 17:32	861	B	90.5	2,500	1.00	WG18747

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790138

Metals Analysis Results

000115

Prepared For:
Cytec Industries

STL Sample No.: 90352010

Matrix: Water

Units: ug/l

Client ID: BACK2R

Sample Date: 01/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 17:38	78.7	B	7.30	100.0	1.00	WG18747
7440-38-2	Arsenic	ICP-TR	02/05/99 17:38	1.53	U	1.53	4.00	1.00	WG18747
7439-89-6	Iron	ICP-TR	02/05/99 17:38	61,100		17.8	50.0	1.00	WG18747
7439-92-1	Lead	ICP-TR	02/05/99 17:38	9.18		0.525	1.50	1.00	WG18747
7439-96-5	Manganese	ICP-TR	02/05/99 17:38	4,940		0.211	7.50	1.00	WG18747
7440-23-5	Sodium	ICP-TR	02/09/99 18:03	739,000		905	25,000	10.00	WG18747

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790139

Metals Analysis Results

000116

Prepared For:
Cytec Industries

STL Sample No.: 90352011
Matrix: Water

Units: ug/l

Client ID: LAP2S
Sample Date: 01/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 17:44	1,150		7.30	100.0	1.00	WG18747
7440-38-2	Arsenic	ICP-TR	02/05/99 17:44	4.89		1.53	4.00	1.00	WG18747
7439-89-6	Iron	ICP-TR	02/05/99 17:44	2,490		17.8	50.0	1.00	WG18747
7439-92-1	Lead	ICP-TR	02/05/99 17:44	24.3		0.525	1.50	1.00	WG18747
7439-96-5	Manganese	ICP-TR	02/05/99 17:44	368		0.211	7.50	1.00	WG18747
7440-23-5	Sodium	ICP-TR	02/09/99 18:09	5,096,000		4,530	125,000	50.00	WG18747

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790140

Metals Analysis Results

000117

Prepared For:
Cytec Industries

STL Sample No.: 90352012
Matrix: Water

Units: ug/l

Client ID: LAP2D
Sample Date: 01/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 17:50	28,400		7.30	100.0	1.00	WG18747
7440-38-2	Arsenic	ICP-TR	02/05/99 17:50	8.98		1.53	4.00	1.00	WG18747
7439-89-6	Iron	ICP-TR	02/05/99 17:50	191,000		17.8	50.0	1.00	WG18747
7439-92-1	Lead	ICP-TR	02/05/99 17:50	0.525	U	0.525	1.50	1.00	WG18747
7439-96-5	Manganese	ICP-TR	02/05/99 17:50	5,300		0.211	7.50	1.00	WG18747
7440-23-5	Sodium	ICP-TR	02/09/99 18:15	3,918,000		4,530	125,000	50.00	WG18747

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790141

000118

Metals Analysis Results

Prepared For:
Cytec IndustriesSTL Sample No.: 90352013
Matrix: Water

Units: ug/l

Client ID: LAP2R
Sample Date: 01/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 17:56	44.5	B	7.30	100.0	1.00	WG18747
7440-38-2	Arsenic	ICP-TR	02/05/99 17:56	1.53	U	1.53	4.00	1.00	WG18747
7439-89-6	Iron	ICP-TR	02/05/99 17:56	21,100		17.8	50.0	1.00	WG18747
7439-92-1	Lead	ICP-TR	02/09/99 18:21	5.25	U	5.25	15.0	10.00	WG18747
7439-96-5	Manganese	ICP-TR	02/05/99 17:56	3,940		0.211	7.50	1.00	WG18747
7440-23-5	Sodium	ICP-TR	02/09/99 18:27	4,111,000		4,530	125,000	50.00	WG18747

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790142

Metals Analysis Results

Prepared For:
Cytec Industries

STL Sample No.: 90352014
Matrix: Water

Units: ug/l

Client ID: FB012799
Sample Date: 01/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 18:02	10.8	B	7.30	100.0	1.00	WG18747
7440-38-2	Arsenic	ICP-TR	02/05/99 18:02	1.53	U	1.53	4.00	1.00	WG18747
7439-89-6	Iron	ICP-TR	02/05/99 18:02	35.8	B	17.8	50.0	1.00	WG18747
7439-92-1	Lead	ICP-TR	02/05/99 18:02	0.525	U	0.525	1.50	1.00	WG18747
7439-96-5	Manganese	ICP-TR	02/05/99 18:02	1.58	B	0.211	7.50	1.00	WG18747
7440-23-5	Sodium	ICP-TR	02/05/99 18:02	1,400	B	90.5	2,500	1.00	WG18747

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790143

Metals Analysis Results

Prepared For:
Cytec Industries

STL Sample No.: 90352015

Matrix: Water

Units: ug/l

Client ID: DPG2R

Sample Date: 01/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 18:08	51.4	B	7.30	100.0	1.00	WG18747
7440-38-2	Arsenic	ICP-TR	02/05/99 18:08	1.53	U	1.53	4.00	1.00	WG18747
7439-89-6	Iron	ICP-TR	02/05/99 18:08	3,240		17.8	50.0	1.00	WG18747
7439-92-1	Lead	ICP-TR	02/11/99 18:03	5.25	U	5.25	15.0	10.00	WG18747
7439-96-5	Manganese	ICP-TR	02/05/99 18:08	1,840		0.211	7.50	1.00	WG18747
7440-23-5	Sodium	ICP-TR	02/11/99 18:03	1,097,000		905	25,000	10.00	WG18747

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790144

Metals Analysis Results

000121

Prepared For:
Cytec Industries

STL Sample No.: 90352017
Matrix: Water

Units: ug/l

Client ID: BACKIS-D
Sample Date: 01/26/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 18:26	37.3	B	7.30	100.0	1.00	WG18747
7440-38-2	Arsenic	ICP-TR	02/05/99 18:26	5.29		1.53	4.00	1.00	WG18747
7439-89-6	Iron	ICP-TR	02/05/99 18:26	826		17.8	50.0	1.00	WG18747
7439-92-1	Lead	ICP-TR	02/05/99 18:26	0.525	U	0.525	1.50	1.00	WG18747
7439-96-5	Manganese	ICP-TR	02/05/99 18:26	146		0.211	7.50	1.00	WG18747
7440-23-5	Sodium	ICP-TR	02/09/99 18:39	263,000		453	12,500	5.00	WG18747

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790145

Metals Analysis Results

Prepared For:
Cytec Industries

STL Sample No.: 90352018
Matrix: Water

Units: ug/l

Client ID: BACK2S-D
Sample Date: 01/26/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 18:32	24.3	B	7.30	100.0	1.00	WG18747
7440-38-2	Arsenic	ICP-TR	02/05/99 18:32	1.53	U	1.53	4.00	1.00	WG18747
7439-89-6	Iron	ICP-TR	02/05/99 18:32	1,530		17.8	50.0	1.00	WG18747
7439-92-1	Lead	ICP-TR	02/05/99 18:32	0.525	U	0.525	1.50	1.00	WG18747
7439-96-5	Manganese	ICP-TR	02/05/99 18:32	2,710		0.211	7.50	1.00	WG18747
7440-23-5	Sodium	ICP-TR	02/09/99 18:45	391,000		905	25,000	10.00	WG18747

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790146

Metals Analysis Results

Prepared For:
Cytec Industries

STL Sample No.: 90352019
Matrix: Water

Units: ug/l

Client ID: BACK2D-D
Sample Date: 01/26/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminium	ICP-TR	02/05/99 19:43	35.7	B	7.30	100.0	1.00	WG18748
7440-38-2	Arsenic	ICP-TR	02/05/99 19:43	9.35		1.53	4.00	1.00	WG18748
7439-89-6	Iron	ICP-TR	02/05/99 19:43	12,900		17.8	50.0	1.00	WG18748
7439-92-1	Lead	ICP-TR	02/05/99 19:43	1.69		0.525	1.50	1.00	WG18748
7439-96-5	Manganese	ICP-TR	02/05/99 19:43	691		0.211	7.50	1.00	WG18748
7440-23-5	Sodium	ICP-TR	02/09/99 19:09	4,740,000		4,530	125,000	50.00	WG18748

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790147

Metals Analysis Results

Prepared For:
Cytec Industries

STL Sample No.: 90352020MS
Matrix: Water

Units: ug/l

Client ID: BACK2DMS-DMS
Sample Date: 01/26/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 19:55	6,380		7.30	100.0	1.00	WG18748
7440-38-2	Arsenic	ICP-TR	02/05/99 19:55	305		1.53	4.00	1.00	WG18748
7439-89-6	Iron	ICP-TR	02/05/99 19:55	19,600		17.8	50.0	1.00	WG18748
7439-92-1	Lead	ICP-TR	02/05/99 19:55	239		0.525	1.50	1.00	WG18748
7439-96-5	Manganese	ICP-TR	02/05/99 19:55	1,010		0.211	7.50	1.00	WG18748
7440-23-5	Sodium	ICP-TR	02/09/99 19:21	5,365,000		4,530	125,000	50.00	WG18748

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790148

Metals Analysis Results

000125

Prepared For:
Cytec Industries

STL Sample No.: 90352021DUP
Matrix: Water

Units: ug/l

Client ID: BACK2DMSD-DDUP
Sample Date: 01/26/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 19:49	38.9	B	7.30	100.0	1.00	WG18748
7440-38-2	Arsenic	ICP-TR	02/05/99 19:49	12.0		1.53	4.00	1.00	WG18748
7439-89-6	Iron	ICP-TR	02/05/99 19:49	15,600		17.8	50.0	1.00	WG18748
7439-92-1	Lead	ICP-TR	02/05/99 19:49	0.525	U	0.525	1.50	1.00	WG18748
7439-96-5	Manganese	ICP-TR	02/05/99 19:49	818		0.211	7.50	1.00	WG18748
7440-23-5	Sodium	ICP-TR	02/09/99 19:15	5,682,000		4,530	125,000	50.00	WG18748

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790149

000126

Metals Analysis Results

Prepared For:
Cytec Industries

STL Sample No.: 90352022

Matrix: Water

Units: ug/l

Client ID: DPG-2S-D

Sample Date: 01/26/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 20:19	30.9	B	7.30	100.0	1.00	WG18748
7440-38-2	Arsenic	ICP-TR	02/05/99 20:19	3.77	B	1.53	4.00	1.00	WG18748
7439-89-6	Iron	ICP-TR	02/05/99 20:19	358		17.8	50.0	1.00	WG18748
7439-92-1	Lead	ICP-TR	02/05/99 20:19	0.525	U	0.525	1.50	1.00	WG18748
7439-96-5	Manganese	ICP-TR	02/05/99 20:19	89.4		0.211	7.50	1.00	WG18748
7440-23-5	Sodium	ICP-TR	02/09/99 19:44	2,244,000		2,260	62,500	25.00	WG18748

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790150

Metals Analysis Results

000127

Prepared For:
Cytec Industries

STL Sample No.: 90352023

Matrix: Water

Units: ug/l

Client ID: DPG-2D-D

Sample Date: 01/26/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 20:25	39.7	B	7.30	100.0	1.00	WG18748
7440-38-2	Arsenic	ICP-TR	02/05/99 20:25	2.50	B	1.53	4.00	1.00	WG18748
7439-89-6	Iron	ICP-TR	02/05/99 20:25	591		17.8	50.0	1.00	WG18748
7439-92-1	Lead	ICP-TR	02/05/99 20:25	0.525	U	0.525	1.50	1.00	WG18748
7439-96-5	Manganese	ICP-TR	02/05/99 20:25	631		0.211	7.50	1.00	WG18748
7440-23-5	Sodium	ICP-TR	02/09/99 19:50	4,494,000		4,530	125,000	50.00	WG18748

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790151

Metals Analysis Results

000128

Prepared For:
Cytec Industries

STL Sample No.: 90352024

Matrix: Water

Units: ug/l

Client ID: BD012699-1)

Sample Date: 01/26/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 20:43	28.0	B	7.30	100.0	1.00	WG18748
7440-38-2	Arsenic	ICP-TR	02/05/99 20:43	2.74	B	1.53	4.00	1.00	WG18748
7439-89-6	Iron	ICP-TR	02/05/99 20:43	582		17.8	50.0	1.00	WG18748
7439-92-1	Lead	ICP-TR	02/05/99 20:43	0.525	U	0.525	1.50	1.00	WG18748
7439-96-5	Manganese	ICP-TR	02/05/99 20:43	654		0.211	7.50	1.00	WG18748
7440-23-5	Sodium	ICP-TR	02/09/99 19:56	4,763,000		4,530	125,000	50.00	WG18748

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790152

Metals Analysis Results

000129

Prepared For:
Cytec Industries

STL Sample No.: 90352025
Matrix: Water

Units: ug/l

Client ID: FB012699-D
Sample Date: 01/26/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 20:49	8.68	B	7.30	100.0	1.00	WG18748
7440-38-2	Arsenic	ICP-TR	02/05/99 20:49	1.53	U	1.53	4.00	1.00	WG18748
7439-89-6	Iron	ICP-TR	02/05/99 20:49	17.8	U	17.8	50.0	1.00	WG18748
7439-92-1	Lead	ICP-TR	02/05/99 20:49	0.675	B	0.525	1.50	1.00	WG18748
7439-96-5	Manganese	ICP-TR	02/05/99 20:49	0.820	B	0.211	7.50	1.00	WG18748
7440-23-5	Sodium	ICP-TR	02/05/99 20:49	749	B	90.5	2,500	1.00	WG18748

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790153

Metals Analysis Results

000130

Prepared For:
Cytec Industries

STL Sample No.: 90352026
Matrix: Water

Units: ug/l

Client ID: BACK2R-D
Sample Date: 01/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 20:55	68.0	B	7.30	100.0	1.00	WG18748
7440-38-2	Arsenic	ICP-TR	02/05/99 20:55	1.53	U	1.53	4.00	1.00	WG18748
7439-89-6	Iron	ICP-TR	02/05/99 20:55	61,300		17.8	50.0	1.00	WG18748
7439-92-1	Lead	ICP-TR	02/05/99 20:55	8.59		0.525	1.50	1.00	WG18748
7439-96-5	Manganese	ICP-TR	02/05/99 20:55	5,000		0.211	7.50	1.00	WG18748
7440-23-5	Sodium	ICP-TR	02/09/99 20:02	739,000		905	25,000	10.00	WG18748

Qualifiers:

U = Undetected below MDL
B = Detected between MDL and RL*

*RL = Reporting Limit

955790154

Metals Analysis Results

Prepared For:
Cytec Industries

STL Sample No.: 90352027

Matrix: Water

Units: ug/l

Client ID: LAP2S-D

Sample Date: 01/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 21:01	31.2	B	7.30	100.0	1.00	WG18748
7440-38-2	Arsenic	ICP-TR	02/05/99 21:01	2.37	B	1.53	4.00	1.00	WG18748
7439-89-6	Iron	ICP-TR	02/05/99 21:01	60.4		17.8	50.0	1.00	WG18748
7439-92-1	Lead	ICP-TR	02/05/99 21:01	0.525	U	0.525	1.50	1.00	WG18748
7439-96-5	Manganese	ICP-TR	02/05/99 21:01	21.8		0.211	7.50	1.00	WG18748
7440-23-5	Sodium	ICP-TR	02/09/99 20:20	5,112,000		4,530	125,000	50.00	WG18748

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790155

Metals Analysis Results

Prepared For:
Cytec Industries

STL Sample No.: 90352028
Matrix: Water

Units: ug/l

Client ID: LAP2D-D
Sample Date: 01/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 21:07	28,600		7.30	100.0	1.00	WG18748
7440-38-2	Arsenic	ICP-TR	02/05/99 21:07	9.14		1.53	4.00	1.00	WG18748
7439-89-6	Iron	ICP-TR	02/05/99 21:07	233,000		17.8	50.0	1.00	WG18748
7439-92-1	Lead	ICP-TR	02/05/99 21:07	0.525	U	0.525	1.50	1.00	WG18748
7439-96-5	Manganese	ICP-TR	02/05/99 21:07	6,120		0.211	7.50	1.00	WG18748
7440-23-5	Sodium	ICP-TR	02/09/99 20:26	3,878,000		4,530	125,000	50.00	WG18748

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790156

Metals Analysis Results

000133

Prepared For:
Cytec Industries

STL Sample No.: 90352029

Matrix: Water

Units: ug/l

Client ID: LAP2R-11

Sample Date: 01/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 21:13	32.4	B	7.30	100.0	1.00	WG18748
7440-38-2	Arsenic	ICP-TR	02/05/99 21:13	1.53	U	1.53	4.00	1.00	WG18748
7439-89-6	Iron	ICP-TR	02/05/99 21:13	21,000		17.8	50.0	1.00	WG18748
7439-92-1	Lead	ICP-TR	02/09/99 20:32	5.25	U	5.25	15.0	10.00	WG18748
7439-96-5	Manganese	ICP-TR	02/05/99 21:13	3,980		0.211	7.50	1.00	WG18748
7440-23-5	Sodium	ICP-TR	02/09/99 20:38	3,944,000		4,530	125,000	50.00	WG18748

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790157

Metals Analysis Results

Prepared For:
Cytec Industries

STL Sample No.: 90352030

Matrix: Water

Units: ug/l

Client ID: FB012799-D

Sample Date: 01/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 21:19	10.1	B	7.30	100.0	1.00	WG18748
7440-38-2	Arsenic	ICP-TR	02/05/99 21:19	1.53	U	1.53	4.00	1.00	WG18748
7439-89-6	Iron	ICP-TR	02/05/99 21:19	29.2	B	17.8	50.0	1.00	WG18748
7439-92-1	Lead	ICP-TR	02/05/99 21:19	0.585	B	0.525	1.50	1.00	WG18748
7439-96-5	Manganese	ICP-TR	02/05/99 21:19	0.480	B	0.211	7.50	1.00	WG18748
7440-23-5	Sodium	ICP-TR	02/05/99 21:19	817	B	90.5	2,500	1.00	WG18748

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790158

Metals Analysis Results

Prepared For:
Cytec Industries

STL Sample No.: 90352031

Matrix: Water

Units: ug/l

Client ID: DPG2R-D

Sample Date: 01/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	02/05/99 21:25	23.0	B	7.30	100.0	1.00	WG18748
7440-38-2	Arsenic	ICP-TR	02/05/99 21:25	1.53	U	1.53	4.00	1.00	WG18748
7439-89-6	Iron	ICP-TR	02/05/99 21:25	1,350		17.8	50.0	1.00	WG18748
7439-92-1	Lead	ICP-TR	02/09/99 20:44	5.25	U	5.25	15.0	10.00	WG18748
7439-96-5	Manganese	ICP-TR	02/05/99 21:25	1,580		0.211	7.50	1.00	WG18748
7440-23-5	Sodium	ICP-TR	02/09/99 20:44	1,063,000		905	25,000	10.00	WG18748

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790159

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

BACK2DMSMS

Lab Name: STL-NJJob No. : 90352Matrix: (soil/water) WaterSample wt/vol: 5 (g/mL) mlLevel: (low/med) LOW% Moisture: not dec. GC Column: DB-624 ID: 0.32 (mm)Soil Extract Volume: (uL)Lab Sample ID: 90352004MSLab File ID: I1006Date Received: 01/28/99Date Analyzed: 02/01/99Dilution Factor: 1.0Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/l

Q

75-09-2	Methylene Chloride	21	
67-64-1	Acetone	22	
75-15-0	Carbon Disulfide	16	
71-43-2	Benzene	21	
108-90-7	Chlorobenzene	25	
1330-20-7	Total Xylenes	76	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000194

BACK2DMSDMSD

Lab Name: STL-NJ

Job No. : 90352

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/mL) ml

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624 ID: 0.32 (mm)

Soil Extract Volume: (uL)

Lab Sample ID: 90352005MSD

Lab File ID: I0997

Date Received: 01/28/99

Date Analyzed: 02/01/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/l

Q

75-09-2	Methylene Chloride	23	
67-64-1	Acetone	24	
75-15-0	Carbon Disulfide	14	
71-43-2	Benzene	20	
108-90-7	Chlorobenzene	24	
1330-20-7	Total Xylenes	70	



Severn Trent Laboratories

628 Route 10

Whippany, NJ 07981

Tel: (973) 428-8181

Fax: (973) 428-5222

REGULATORY FORMAT DATA PACKAGE

SAMPLING DATE: JULY 20, 1999

CYTEC INDUSTRIES

Project: CYTEC WARNERS/440.52.021

PREPARED BY:

SEVERN TRENT LABORATORIES

(CERTIFICATION NUMBER 14530)

STL JOB No. 20990-92973

VOLUME 1 of 1

47

Other Laboratory Locations:

- 149 Rangeway Road, North Billerica MA 01862
- 16203 Park Row, Suite 110, Houston TX 77084
- 53 South Park Drive, Colchester, VT 05446
- 315 Fullerton Avenue, Newburgh NY 12550

- 11 East Olive Road, Pensacola FL 32514
- Westfield Executive Park, 53 Southampton Road, Westfield MA 01085
- 200 Monroe Turnpike, Monroe, CT 06468

a part of

Severn Trent Services Inc.

955790163

BBC000014



AUGUST 11, 1999

20990-92973
BLASLAND BOUCK & LEE, INC.
8 SOUTH RIVER ROAD
CRANBURY , NJ 08512

ATTENTION: GEOFF BANDOLA

The following samples were received for analysis by STL-NJ (Cert.#14530). These samples were received on and labeled as follows:

STL Sample No.:	Client ID:	Date Received
92973001	BACK1S	07/22/99
92973002	BACK2S	07/22/99
92973003	BACK2D	07/22/99
92973004	BACK2DMS	07/22/99
92973005	BACK2DMSD	07/22/99
92973006	BACK-2R	07/22/99
92973007	LAP-2S	07/22/99
92973008	LAP-2D	07/22/99
92973009	LAP-2R	07/22/99
92973010	FB072099	07/22/99
92973011	TB072099	07/22/99
92973012	DPG-2S	07/22/99
92973013	FB072199	07/22/99
92973014	DPG-2R	07/22/99
92973015	BD072199	07/22/99
92973016	BACK-1S-D	07/22/99
92973017	BACK-2S-D	07/22/99
92973018	BACK-2D-D	07/22/99
92973019	BACK2DMS-D	07/22/99
92973020	BACK2DMSD-D	07/22/99
92973021	BACK-2R-D	07/22/99
92973022	LAP-2S-D	07/22/99
92973023	LAP-2D-D	07/22/99
92973024	LAP-2R-D	07/22/99

DATA RELEASE AUTHORIZED BY:

Carl W. Armbruster
Director of Operations

955790164

a part of
Sewer Treatment Services Inc.



AUGUST 11, 1999

20990-92973
BLASLAND BOUCK & LEE, INC.
8 SOUTH RIVER ROAD
CRANBURY , NJ 08512

ATTENTION: GEOFF BANDOLA

The following samples were received for analysis by STL-NJ
(Cert.#14530). These samples were received on and labeled as follows:

STL Sample No.:	Client ID:	Date Received
92973025	FB072099-D	07/22/99
92973026	DPG-2S-D	07/22/99
92973027	FB072199-D	07/22/99
92973028	DPG-2R-D	07/22/99
92973029	BD072199-D	07/22/99

DATA RELEASE AUTHORIZED BY:

Carl W. Armbruster
Director of Operations

955790165

a part of
Severn-Turn Services Inc.

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Severi Labc
628 Route 10
Whippany NJ 07981

Tel: (973) 428-8181
Fax: (973) 428-5222

CHAIN OF CUSTODY

FIELD BOOK: 955790168

Pg 1 of 1

① Client: <u>Blasland, Bouck & Lee, Inc.</u>			# O F C O N T A I N E R S ⑬	⑭ Bill To: <u>Cytec Industries Inc.</u>			For Lab Use Only		
② Project Name/no.: <u>Cytec Warners</u>				PO# <u>440.92021.002</u>			Job No. <u>92973</u>		
③ Client Contact: <u>Geoff Bardola</u>				⑮ ANALYSIS REQUIRED			Quote No. _____		
④ STL Contact: <u>Deanna Doster</u>				<u>VOA (624)</u> <u>Total Metals (200.7)</u> <u>Filtered Metals (200.7)</u>			① # of Coolers: _____		
⑤ TAT: 1wk, 2wk, <u>3wk</u> OTHER _____							② Cooler Temp.(s) _____		
⑥ Proj. Type: NJPDES, NPDES, ISRA, CLP, CERCLA, RCRA, UST, <u>COMOA</u> , OTHER _____							③ Custody Seal #(s) _____		
⑦ Protocol: CLP, SW846, <u>EPA 600</u> DW, OTHER _____							④ Date Due: _____		
⑧ Reporting Type: <u>NJ Reg Format</u> <u>NJ Reduced Format</u> <u>Changed as per CLP, Level II, Level I (Data Sum),</u> <u>Geoff Bardola 07/23/99</u>							PM NON-CONFORMANCE		
⑨ Client ID (10 CHAR)			⑩ Date			⑪ Time			
⑫ Mtx									
Back-19			7/22/99			0910			
Back-25			7/22/99			1030			
Back-2D			7/22/99			1130			
Back-2R			7/22/99			1200			
LAP-2S			7/22/99			1600			
LAP-2D			7/22/99			1525			
LAP-2R			7/22/99			1530			
FB072099			7/22/99			1615			
TS072099			7/22/99			—			
DPG-2S			7/22/99			1400			
FB072199			7/22/99			1425			
DPG-2R			7/22/99			1540			
BD072199			7/22/99			—			
COMMENTS: (Please include hazards on site.)			Back-2D Triple Volume for MS/MSD			VOA analyze for Carbon Disulfide, Methylene chloride, Acetone, Benzene chlorobenzene, Xylenes			
Metals analyze for Al, As, Fe, Pb, Mn, Na									
Print Name and Company			Signature			Custody Seal # (s)			
Sampled By: <u>Geoff Bardola/BBL</u>			<u>Geoff Bardola</u>			<u>6814</u>			
Received By: <u>ALD Achille</u> STL			<u>ALD Achille</u>			<u>6815</u>			
Relinquished By: <u>ALD Achille</u>			<u>ALD Achille</u>						
Received By: <u>Joey Hiler</u> STL			<u>Joey Hiler</u>						
Relinquished By: _____			_____						
Received By: _____			_____						
Mtx = Matrix of Sample. (AI=Air, AQ=Aqueous, LE=Leachate, ML=Misc Liquid, MS=Misc Solids, OIL, SE=Sediment, SL=Sludge, SO=Soil)									

SEVERN TRENT LABORATORIES, Inc. - NEW JERSEY
SAMPLE RECEIPT VERIFICATION FORM

000002

JOB NUMBER: 92973 CLIENT KAL DATE RECEIVED: 7/22/99

OF SAMPLES 25 # OF COOLERS 2
CUSTODY SEALS: PRESENT/ABSENT INTACT/BROKEN TEMPERATURE BLANK PRESENT: YES NO

COOLER TEMP/S °C 3.1 4.5 COOLER OUTSIDE 2-6 °C PRESERVED: BLUE-ICE/NONE
IF OUTSIDE TEMP RANGE - WERE SAMPLES RECEIVED LESS THAN 4 HOURS FROM COLLECTION? YES NO

CHAIN OF CUSTODY: PRESENT/ABSENT PROPERLY SIGNED, DATED, TIME: YES NO
SAMPLE TAGS: PRESENT/ABSENT RECEIVED BY: DRIVER IF SHIPPED AIRBILL PRESENT #

COOLER RADIOACT. SCREEN BELOW 0.50 uR/hr YES NO (INFORM SAFETY OFFICER IMMED.)

YES NO SAMPLE BOTTLES INTACT
YES NO PROPER CONTAINERS PER ANALYSIS USED
YES NO SAMPLE LABELS INTACT
YES NO LABELS COMPLETE AND LEGIBLE (ID, DATE, TIME, SIGNATURE, PRESERVATIVE)
YES NO SAMPLES RECEIVED WITHIN HOLDING TIME
YES NO SAMPLES PROPERLY PRESERVED
YES NO NO BUBBLES PRESENT VOA WATER MATRIX NA
YES NO SUFFICIENT SAMPLE VOLUME RECEIVED
YES NO DRINKING H₂O/TREATED H₂O - CHECKED FOR RESIDUAL CHLORINE NA
(DOCUMENT ON pH VERIFICATION LOG FORM)

92 INITIAL 7/23 DATE - RUSH REPORT ISSUED BY NA
INITIAL DATE - pH ANALYSIS PERFORMED BY NA
INITIAL DATE - % MOISTURE PERFORMED BY NA
INITIAL DATE - SAMPLE COMPOSITE PERFORMED BY NA

NOTE AND ITEMIZE BY SAMPLE AFFECTED, DISCREPANCIES AND NONCONFORMANCES FOUND:

PROJECT MANAGER INFORMED OF DISCREPANCIES: INITIALS DATE NA

SUBCONTRACTING OF ANALYSIS REQUIRED YES NO SUB COC COMPLETED YES NO NA
SUBCONTRACTED SAMPLES SHIPPED YES NO CARRIER USED

SAMPLE RECEIPT, LABELING AND STORAGE PROCEDURES PERFORMED BY: JOSUE HERRERA

FINAL INSPECTION

BOTTLES CORRECTLY LABELED YES NO REVIEWED BY [Signature] DATE 7/22/99
INTERNAL CHAIN OF CUSTODY INITIATED YES NO
ALL SIGNATURES AND DATES COMPLETE YES NO

CLIENT INFORMED OF DISCREPANCIES/NONCONFORMANCES BY PM DATE TIME

NAME CLIENT REPRESENTATIVE INFORMED METHOD: PHONE FAX

CORRECTIVE ACTION REQUESTED BY CLIENT:

CORRECTIVE ACTION TAKEN:

PROJECT MANAGER APPROVED VERIFICATION FORM COMPLETE: [Signature] DATE 7/23/99
Print name DDorck

955790169

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000035

BACK1S

Lab Name: STL-NJ

Job No. : 92973

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/mL) ml

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624 ID: 0.32 (mm)

Soil Extract Volume: (uL)

Lab Sample ID: 92973001

Lab File ID: I7427

Date Received: 07/22/99

Date Analyzed: 07/24/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/l

Q

75-09-2	Methylene Chloride	1.8	
67-64-1	Acetone	1.6	U
75-15-0	Carbon Disulfide	0.56	U
71-43-2	Benzene	0.26	U
108-90-7	Chlorobenzene	0.58	U
1330-20-7	Total Xylenes	1.2	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000040

BACK2S

Lab Name: STL-NJ

Job No. : 92973

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/mL) ml

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624 ID: 0.32 (mm)

Soil Extract Volume: (uL)

Lab Sample ID: 92973002

Lab File ID: I7428

Date Received: 07/22/99

Date Analyzed: 07/24/99

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/l

Q

75-09-2	Methylene Chloride	3.8	
67-64-1	Acetone	1.6	U
75-15-0	Carbon Disulfide	2.8	
71-43-2	Benzene	0.26	U
108-90-7	Chlorobenzene	0.58	U
1330-20-7	Total Xylenes	1.5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000044

BACK2D

Lab Name: STL-NJ

Job No. : 92973

Matrix: (soil/water) Water

Lab Sample ID: 92973003

Sample wt/vol: 5 (g/mL) ml

Lab File ID: I7429

Level: (low/med) LOW

Date Received: 07/22/99

% Moisture: not dec.

Date Analyzed: 07/24/99

GC Column: DB-624 ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/l Q

75-09-2	Methylene Chloride	1.9	
67-64-1	Acetone	1.6	U
75-15-0	Carbon Disulfide	0.56	U
71-43-2	Benzene	0.26	U
108-90-7	Chlorobenzene	0.58	U
1330-20-7	Total Xylenes	1.5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

000048

BACK-2R

Lab Name: STL-NJ

Job No. : 92973

Matrix: (soil/water) Water

Lab Sample ID: 92973006

Sample wt/vol: 5 (g/mL) ml

Lab File ID: I7430

Level: (low/med) LOW

Date Received: 07/22/99

% Moisture: not dec.

Date Analyzed: 07/24/99

GC Column: DB-624 ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/l

Q

75-09-2	Methylene Chloride	2.5	
67-64-1	Acetone	1.6	U
75-15-0	Carbon Disulfide	0.56	U
71-43-2	Benzene	0.26	U
108-90-7	Chlorobenzene	0.58	U
1330-20-7	Total Xylenes	1.5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

LAP-2D

Lab Name: STL-NJJob No. : 92973Matrix: (soil/water) WaterSample wt/vol: 5 (g/mL) mlLevel: (low/med) LOW% Moisture: not dec. GC Column: DB-624 ID: 0.32 (mm)Soil Extract Volume: (uL)Lab Sample ID: 92973008Lab File ID: I7432Date Received: 07/22/99Date Analyzed: 07/24/99Dilution Factor: 50.0Soil Aliquot Volume: (uL)

CAS NO. COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/l Q

75-09-2	Methylene Chloride	140	
67-64-1	Acetone	78	U
75-15-0	Carbon Disulfide	230	
71-43-2	Benzene	130	
108-90-7	Chlorobenzene	20000	
1330-20-7	Total Xylenes	75	U

Metals Analysis Results

000085

Prepared For:
Cytec Industries

STL Sample No.: 92973001
Matrix: Water

Units: ug/l

Client ID: BACK1S
Sample Date: 07/20/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 19:35	36.5	U	36.5	500	5.00	WG30817
7440-38-2	Arsenic	ICP-TR	08/04/99 19:35	22.9		7.63	20.0	5.00	WG30817
7439-89-6	Iron	ICP-TR	08/04/99 19:35	2,000		89.0	250	5.00	WG30817
7439-92-1	Lead	ICP-TR	08/04/99 19:35	2.63	U	2.63	7.50	5.00	WG30817
7439-96-5	Manganese	ICP-TR	08/04/99 19:35	141		1.06	37.5	5.00	WG30817
7440-23-5	Sodium	ICP-TR	08/04/99 19:35	274,000		453	12,500	5.00	WG30817

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL *

*RL = Reporting Limit

955790175

Metals Analysis Results

000086

Prepared For:
Cytec Industries

STL Sample No.: 92973002

Matrix: Water

Units: ug/l

Client ID: BACK2S

Sample Date: 07/20/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 19:41	36.5	U	36.5	500	5.00	WG30817
7440-38-2	Arsenic	ICP-TR	08/04/99 19:41	7.63	U	7.63	20.0	5.00	WG30817
7439-89-6	Iron	ICP-TR	08/04/99 19:41	1,760		89.0	250	5.00	WG30817
7439-92-1	Lead	ICP-TR	08/04/99 19:41	6.45	B	2.63	7.50	5.00	WG30817
7439-96-5	Manganese	ICP-TR	08/04/99 19:41	1,410		1.06	37.5	5.00	WG30817
7440-23-5	Sodium	ICP-TR	08/04/99 19:41	296,000		453	12,500	5.00	WG30817

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790176

Metals Analysis Results

000087

Prepared For:
Cytec Industries

STL Sample No.: 92973003

Matrix: Water

Units: ug/l

Client ID: BACK2D

Sample Date: 07/20/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 19:47	36.5	U	36.5	500	5.00	WG30817
7440-38-2	Arsenic	ICP-TR	08/04/99 19:47	15.3	B	7.63	20.0	5.00	WG30817
7439-89-6	Iron	ICP-TR	08/04/99 19:47	17,800		89.0	250	5.00	WG30817
7439-92-1	Lead	ICP-TR	08/04/99 19:47	2.63	U	2.63	7.50	5.00	WG30817
7439-96-5	Manganese	ICP-TR	08/04/99 19:47	956		1.06	37.5	5.00	WG30817
7440-23-5	Sodium	ICP-TR	08/06/99 14:13	5,730,000		4,530	125,000	50.00	WG30817

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790177

Metals Analysis Results

000088

Prepared For:
Cytec Industries

STL Sample No.: 92973004MS
Matrix: Water

Units: ug/l

Client ID: BACK2DMSMS
Sample Date: 07/20/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 19:59	5,850		36.5	500	5.00	WG30817
7440-38-2	Arsenic	ICP-TR	08/04/99 19:59	272		7.63	20.0	5.00	WG30817
7439-89-6	Iron	ICP-TR	08/04/99 19:59	22,000		89.0	250	5.00	WG30817
7439-92-1	Lead	ICP-TR	08/04/99 19:59	215		2.63	7.50	5.00	WG30817
7439-96-5	Manganese	ICP-TR	08/04/99 19:59	1,160		1.06	37.5	5.00	WG30817
7440-23-5	Sodium	ICP-TR	08/06/99 14:24	5,765,000		4,530	125,000	50.00	WG30817

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790178

Metals Analysis Results

000089

Prepared For:
Cytec Industries

STL Sample No.: 92973005DUP
Matrix: Water

Units: ug/l

Client ID: BACK2DMSDDUP
Sample Date: 07/20/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 19:53	36.5	U	36.5	500	5.00	WG30817
7440-38-2	Arsenic	ICP-TR	08/04/99 19:53	7.63	U	7.63	20.0	5.00	WG30817
7439-89-6	Iron	ICP-TR	08/04/99 19:53	16,800		89.0	250	5.00	WG30817
7439-92-1	Lead	ICP-TR	08/04/99 19:53	2.63	U	2.63	7.50	5.00	WG30817
7439-96-5	Manganese	ICP-TR	08/04/99 19:53	902		1.06	37.5	5.00	WG30817
7440-23-5	Sodium	ICP-TR	08/06/99 14:19	5,539,000		4,530	125,000	50.00	WG30817

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790179

Metals Analysis Results

000090

Prepared For:
Cytec Industries

STL Sample No.: 92973006
Matrix: Water

Units: ug/l

Client ID: BACK-2R
Sample Date: 07/20/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 20:34	36.5	U	36.5	500	5.00	WG30817
7440-38-2	Arsenic	ICP-TR	08/04/99 20:34	7.63	U	7.63	20.0	5.00	WG30817
7439-89-6	Iron	ICP-TR	08/04/99 20:34	134,000		89.0	250	5.00	WG30817
7439-92-1	Lead	ICP-TR	08/04/99 20:34	2.63	U	2.63	7.50	5.00	WG30817
7439-96-5	Manganese	ICP-TR	08/04/99 20:34	5,210		1.06	37.5	5.00	WG30817
7440-23-5	Sodium	ICP-TR	08/06/99 14:48	789,000		905	25,000	10.00	WG30817

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790180

Metals Analysis Results

000091

Prepared For:
Cytec Industries

STL Sample No.: 92973007
Matrix: Water

Units: ug/l

Client ID: LAP-2S
Sample Date: 07/20/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 20:40	36.5	U	36.5	500	5.00	WG30817
7440-38-2	Arsenic	ICP-TR	08/04/99 20:40	9.65	B	7.63	20.0	5.00	WG30817
7439-89-6	Iron	ICP-TR	08/04/99 20:40	89.0	U	89.0	250	5.00	WG30817
7439-92-1	Lead	ICP-TR	08/04/99 20:40	2.63	U	2.63	7.50	5.00	WG30817
7439-96-5	Manganese	ICP-TR	08/04/99 20:40	10.5	B	1.06	37.5	5.00	WG30817
7440-23-5	Sodium	ICP-TR	08/06/99 14:54	6,837,000		4,530	125,000	50.00	WG30817

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790181

Metals Analysis Results

000092

Prepared For:
Cytec Industries

STL Sample No.: 92973008

Matrix: Water

Units: ug/l

Client ID: LAP-2D

Sample Date: 07/20/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 20:46	20,400		36.5	500	5.00	WG30817
7440-38-2	Arsenic	ICP-TR	08/04/99 20:46	19.3	B	7.63	20.0	5.00	WG30817
7439-89-6	Iron	ICP-TR	08/04/99 20:46	215,000		89.0	250	5.00	WG30817
7439-92-1	Lead	ICP-TR	08/04/99 20:46	2.63	U	2.63	7.50	5.00	WG30817
7439-96-5	Manganese	ICP-TR	08/04/99 20:46	6,580		1.06	37.5	5.00	WG30817
7440-23-5	Sodium	ICP-TR	08/06/99 15:00	3,808,000		4,530	125,000	50.00	WG30817

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790182

Metals Analysis Results

000093

Prepared For:
Cytec Industries

STL Sample No.: 92973009
Matrix: Water

Units: ug/l

Client ID: LAP-2R
Sample Date: 07/21/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 20:52	36.5	U	36.5	500	5.00	WG30817
7440-38-2	Arsenic	ICP-TR	08/04/99 20:52	7.63	U	7.63	20.0	5.00	WG30817
7439-89-6	Iron	ICP-TR	08/04/99 20:52	45,200		89.0	250	5.00	WG30817
7439-92-1	Lead	ICP-TR	08/04/99 20:52	2.63	U	2.63	7.50	5.00	WG30817
7439-96-5	Manganese	ICP-TR	08/04/99 20:52	4,170		1.06	37.5	5.00	WG30817
7440-23-5	Sodium	ICP-TR	08/06/99 15:06	3,924,000		4,530	125,000	50.00	WG30817

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790183

Metals Analysis Results

000094

Prepared For:
Cytec Industries

STL Sample No.: 92973010
Matrix: Water

Units: ug/l

Client ID: FB072099
Sample Date: 07/20/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 20:58	36.5	U	36.5	500	5.00	WG30817
7440-38-2	Arsenic	ICP-TR	08/04/99 20:58	7.63	U	7.63	20.0	5.00	WG30817
7439-89-6	Iron	ICP-TR	08/04/99 20:58	89.0	U	89.0	250	5.00	WG30817
7439-92-1	Lead	ICP-TR	08/04/99 20:58	2.63	U	2.63	7.50	5.00	WG30817
7439-96-5	Manganese	ICP-TR	08/04/99 20:58	3.53	B	1.06	37.5	5.00	WG30817
7440-23-5	Sodium	ICP-TR	08/04/99 20:58	453	U	453	12,500	5.00	WG30817

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790184

Metals Analysis Results

000095

Prepared For:
Cytec Industries

STL Sample No.: 92973012

Matrix: Water

Units: ug/l

Client ID: DPG-2S

Sample Date: 07/21/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 21:40	36.5	U	36.5	500	5.00	WG30842
7440-38-2	Arsenic	ICP-TR	08/04/99 21:40	7.63	U	7.63	20.0	5.00	WG30842
7439-89-6	Iron	ICP-TR	08/04/99 21:40	2,220		89.0	250	5.00	WG30842
7439-92-1	Lead	ICP-TR	08/04/99 21:40	2.63	U	2.63	7.50	5.00	WG30842
7439-96-5	Manganese	ICP-TR	08/04/99 21:40	152		1.06	37.5	5.00	WG30842
7440-23-5	Sodium	ICP-TR	08/06/99 15:30	3,461,000		4,530	125,000	50.00	WG30842

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790185

Metals Analysis Results

000096

Prepared For:
Cytec Industries

STL Sample No.: 92973013

Matrix: Water

Units: ug/l

Client ID: FB072199

Sample Date: 07/21/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 21:46	36.5	U	36.5	500	5.00	WG30842
7440-38-2	Arsenic	ICP-TR	08/04/99 21:46	7.63	U	7.63	20.0	5.00	WG30842
7439-89-6	Iron	ICP-TR	08/04/99 21:46	89.0	U	89.0	250	5.00	WG30842
7439-92-1	Lead	ICP-TR	08/04/99 21:46	2.63	U	2.63	7.50	5.00	WG30842
7439-96-5	Manganese	ICP-TR	08/04/99 21:46	1.93	B	1.06	37.5	5.00	WG30842
7440-23-5	Sodium	ICP-TR	08/04/99 21:46	453	U	453	12,500	5.00	WG30842

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790186

Metals Analysis Results

000097

Prepared For:
Cytec Industries

STL Sample No.: 92973014
Matrix: Water

Units: ug/l

Client ID: DPG-2R
Sample Date: 07/21/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 21:52	36.5	U	36.5	500	5.00	WG30842
7440-38-2	Arsenic	ICP-TR	08/04/99 21:52	9.70	B	7.63	20.0	5.00	WG30842
7439-89-6	Iron	ICP-TR	08/04/99 21:52	2,470		89.0	250	5.00	WG30842
7439-92-1	Lead	ICP-TR	08/04/99 21:52	2.63	U	2.63	7.50	5.00	WG30842
7439-96-5	Manganese	ICP-TR	08/04/99 21:52	410		1.06	37.5	5.00	WG30842
7440-23-5	Sodium	ICP-TR	08/04/99 21:52	282,000		453	12,500	5.00	WG30842

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790187

Metals Analysis Results

Prepared For:
Cytec Industries

000098

STL Sample No.: 92973015

Matrix: Water

Units: ug/l

Client ID: BD072199

Sample Date: 07/21/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 21:58	36.5	U	36.5	500	5.00	WG30842
7440-38-2	Arsenic	ICP-TR	08/04/99 21:58	7.63	U	7.63	20.0	5.00	WG30842
7439-89-6	Iron	ICP-TR	08/04/99 21:58	2,580		89.0	250	5.00	WG30842
7439-92-1	Lead	ICP-TR	08/04/99 21:58	2.63	U	2.63	7.50	5.00	WG30842
7439-96-5	Manganese	ICP-TR	08/04/99 21:58	433		1.06	37.5	5.00	WG30842
7440-23-5	Sodium	ICP-TR	08/04/99 21:58	289,000		453	12,500	5.00	WG30842

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790188

Metals Analysis Results

000099

Prepared For:
Cytec Industries

STL Sample No.: 92973016

Matrix: Water

Units: ug/l

Client ID: BACK-1S-D

Sample Date: 07/20/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 22:04	36.5	U	36.5	500	5.00	WG30842
7440-38-2	Arsenic	ICP-TR	08/04/99 22:04	13.3	B	7.63	20.0	5.00	WG30842
7439-89-6	Iron	ICP-TR	08/04/99 22:04	1,460		89.0	250	5.00	WG30842
7439-92-1	Lead	ICP-TR	08/04/99 22:04	2.63	U	2.63	7.50	5.00	WG30842
7439-96-5	Manganese	ICP-TR	08/04/99 22:04	136		1.06	37.5	5.00	WG30842
7440-23-5	Sodium	ICP-TR	08/04/99 22:04	265,000		453	12,500	5.00	WG30842

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790189

Metals Analysis Results

000100

Prepared For:
Cytec Industries

STL Sample No.: 92973017

Matrix: Water

Units: ug/l

Client ID: BACK-2S-D

Sample Date: 07/20/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 22:10	36.5	U	36.5	500	5.00	WG30842
7440-38-2	Arsenic	ICP-TR	08/04/99 22:10	12.1	B	7.63	20.0	5.00	WG30842
7439-89-6	Iron	ICP-TR	08/04/99 22:10	698		89.0	250	5.00	WG30842
7439-92-1	Lead	ICP-TR	08/04/99 22:10	2.63	U	2.63	7.50	5.00	WG30842
7439-96-5	Manganese	ICP-TR	08/04/99 22:10	1,090		1.06	37.5	5.00	WG30842
7440-23-5	Sodium	ICP-TR	08/04/99 22:10	267,000		453	12,500	5.00	WG30842

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790190

Metals Analysis Results

000101

Prepared For:
Cytec Industries

STL Sample No.: 92973018

Matrix: Water

Units: ug/l

Client ID: BACK-2D-D

Sample Date: 07/20/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 22:16	36.5	U	36.5	500	5.00	WG30842
7440-38-2	Arsenic	ICP-TR	08/04/99 22:16	21.0		7.63	20.0	5.00	WG30842
7439-89-6	Iron	ICP-TR	08/04/99 22:16	17,900		89.0	250	5.00	WG30842
7439-92-1	Lead	ICP-TR	08/04/99 22:16	2.63	U	2.63	7.50	5.00	WG30842
7439-96-5	Manganese	ICP-TR	08/04/99 22:16	959		1.06	37.5	5.00	WG30842
7440-23-5	Sodium	ICP-TR	08/06/99 15:36	5,797,000		4,530	125,000	50.00	WG30842

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790191

Metals Analysis Results

000102

Prepared For:
Cytec Industries

STL Sample No.: 92973019MS

Matrix: Water

Units: ug/l

Client ID: BACK2DMS-DMS

Sample Date: 07/20/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 22:40	5,700		36.5	500	5.00	WG30842
7440-38-2	Arsenic	ICP-TR	08/04/99 22:40	272		7.63	20.0	5.00	WG30842
7439-89-6	Iron	ICP-TR	08/04/99 22:40	21,800		89.0	250	5.00	WG30842
7439-92-1	Lead	ICP-TR	08/04/99 22:40	212		2.63	7.50	5.00	WG30842
7439-96-5	Manganese	ICP-TR	08/04/99 22:40	1,150		1.06	37.5	5.00	WG30842
7440-23-5	Sodium	ICP-TR	08/06/99 15:48	5,602,000		4,530	125,000	50.00	WG30842

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790192

Metals Analysis Results

000103

Prepared For:
Cytec Industries

STL Sample No.: 92973020DUP

Matrix: Water

Units: ug/l

Client ID: BACK2DMSD-DDUP

Sample Date: 07/20/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 22:22	36.5	U	36.5	500	5.00	WG30842
7440-38-2	Arsenic	ICP-TR	08/04/99 22:22	15.6	B	7.63	20.0	5.00	WG30842
7439-89-6	Iron	ICP-TR	08/04/99 22:22	17,300		89.0	250	5.00	WG30842
7439-92-1	Lead	ICP-TR	08/04/99 22:22	2.63	U	2.63	7.50	5.00	WG30842
7439-96-5	Manganese	ICP-TR	08/04/99 22:22	925		1.06	37.5	5.00	WG30842
7440-23-5	Sodium	ICP-TR	08/06/99 15:42	5,675,000		4,530	125,000	50.00	WG30842

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790193

Metals Analysis Results

000104

Prepared For:
Cytec Industries

STL Sample No.: 92973021

Matrix: Water

Units: ug/l

Client ID: BACK-2R-D

Sample Date: 07/20/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 23:04	36.5	U	36.5	500	5.00	WG30842
7440-38-2	Arsenic	ICP-TR	08/04/99 23:04	7.63	U	7.63	20.0	5.00	WG30842
7439-89-6	Iron	ICP-TR	08/04/99 23:04	123,000		89.0	250	5.00	WG30842
7439-92-1	Lead	ICP-TR	08/04/99 23:04	2.63	U	2.63	7.50	5.00	WG30842
7439-96-5	Manganese	ICP-TR	08/04/99 23:04	4,960		1.06	37.5	5.00	WG30842
7440-23-5	Sodium	ICP-TR	08/04/99 23:04	723,000		453	12,500	5.00	WG30842

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790194

Metals Analysis Results

000105

Prepared For:
Cytec Industries

STL Sample No.: 92973022
Matrix: Water

Units: ug/l

Client ID: LAP-2S-D
Sample Date: 07/20/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 23:10	36.5	U	36.5	500	5.00	WG30842
7440-38-2	Arsenic	ICP-TR	08/04/99 23:10	10.6	B	7.63	20.0	5.00	WG30842
7439-89-6	Iron	ICP-TR	08/04/99 23:10	89.0	U	89.0	250	5.00	WG30842
7439-92-1	Lead	ICP-TR	08/04/99 23:10	2.63	U	2.63	7.50	5.00	WG30842
7439-96-5	Manganese	ICP-TR	08/04/99 23:10	4.95	B	1.06	37.5	5.00	WG30842
7440-23-5	Sodium	ICP-TR	08/06/99 16:12	6,799,000		4,530	125,000	50.00	WG30842

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790195

Metals Analysis Results

000106

Prepared For:
Cytec Industries

STL Sample No.: 92973023
Matrix: Water

Units: ug/l

Client ID: LAP-2D-D
Sample Date: 07/20/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 23:16	19,600		36.5	500	5.00	WG30842
7440-38-2	Arsenic	ICP-TR	08/04/99 23:16	17.3	B	7.63	20.0	5.00	WG30842
7439-89-6	Iron	ICP-TR	08/04/99 23:16	208,000		89.0	250	5.00	WG30842
7439-92-1	Lead	ICP-TR	08/04/99 23:16	2.63	U	2.63	7.50	5.00	WG30842
7439-96-5	Manganese	ICP-TR	08/04/99 23:16	6,440		1.06	37.5	5.00	WG30842
7440-23-5	Sodium	ICP-TR	08/06/99 16:18	3,804,000		4,530	125,000	50.00	WG30842

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790196

Metals Analysis Results

000107

Prepared For:
Cytec Industries

STL Sample No.: 92973024

Matrix: Water

Units: ug/l

Client ID: LAP-2R-D

Sample Date: 07/21/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 23:22	36.5	U	36.5	500	5.00	WG30842
7440-38-2	Arsenic	ICP-TR	08/04/99 23:22	7.63	U	7.63	20.0	5.00	WG30842
7439-89-6	Iron	ICP-TR	08/04/99 23:22	27,500		89.0	250	5.00	WG30842
7439-92-1	Lead	ICP-TR	08/06/99 16:36	5.25	U	5.25	15.0	10.00	WG30842
7439-96-5	Manganese	ICP-TR	08/04/99 23:22	4,000		1.06	37.5	5.00	WG30842
7440-23-5	Sodium	ICP-TR	08/06/99 16:42	3,826,000		4,530	125,000	50.00	WG30842

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790197

Metals Analysis Results

000108

Prepared For:
Cytec Industries

STL Sample No.: 92973025
Matrix: Water

Units: ug/l

Client ID: FB072099-D
Sample Date: 07/20/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 23:28	36.5	U	36.5	500	5.00	WG30842
7440-38-2	Arsenic	ICP-TR	08/04/99 23:28	7.63	U	7.63	20.0	5.00	WG30842
7439-89-6	Iron	ICP-TR	08/04/99 23:28	89.0	U	89.0	250	5.00	WG30842
7439-92-1	Lead	ICP-TR	08/04/99 23:28	2.63	U	2.63	7.50	5.00	WG30842
7439-96-5	Manganese	ICP-TR	08/04/99 23:28	1.63	B	1.06	37.5	5.00	WG30842
7440-23-5	Sodium	ICP-TR	08/04/99 23:28	453	U	453	12,500	5.00	WG30842

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790198

Metals Analysis Results

000109

Prepared For:
Cytec Industries

STL Sample No.: 92973026

Matrix: Water

Units: ug/l

Client ID: DPG-2S-D

Sample Date: 07/21/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 23:34	36.5	U	36.5	500	5.00	WG30842
7440-38-2	Arsenic	ICP-TR	08/04/99 23:34	9.60	B	7.63	20.0	5.00	WG30842
7439-89-6	Iron	ICP-TR	08/04/99 23:34	2,070		89.0	250	5.00	WG30842
7439-92-1	Lead	ICP-TR	08/04/99 23:34	2.63	U	2.63	7.50	5.00	WG30842
7439-96-5	Manganese	ICP-TR	08/04/99 23:34	150		1.06	37.5	5.00	WG30842
7440-23-5	Sodium	ICP-TR	08/06/99 16:48	3,611,000		4,530	125,000	50.00	WG30842

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790199

Metals Analysis Results

000110

Prepared For:
Cytec Industries

STL Sample No.: 92973027
Matrix: Water

Units: ug/l

Client ID: FB072199-D
Sample Date: 07/21/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 23:52	36.5	U	36.5	500	5.00	WG30842
7440-38-2	Arsenic	ICP-TR	08/04/99 23:52	7.63	U	7.63	20.0	5.00	WG30842
7439-89-6	Iron	ICP-TR	08/04/99 23:52	89.0	U	89.0	250	5.00	WG30842
7439-92-1	Lead	ICP-TR	08/04/99 23:52	2.63	U	2.63	7.50	5.00	WG30842
7439-96-5	Manganese	ICP-TR	08/04/99 23:52	1.33	B	1.06	37.5	5.00	WG30842
7440-23-5	Sodium	ICP-TR	08/04/99 23:52	453	U	453	12,500	5.00	WG30842

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790200

Metals Analysis Results

000111

Prepared For:
Cytec Industries

STL Sample No.: 92973028
Matrix: Water

Units: ug/l

Client ID: DPG-2R-D
Sample Date: 07/21/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/04/99 23:58	36.5	U	36.5	500	5.00	WG30842
7440-38-2	Arsenic	ICP-TR	08/04/99 23:58	9.05	B	7.63	20.0	5.00	WG30842
7439-89-6	Iron	ICP-TR	08/04/99 23:58	3,520		89.0	250	5.00	WG30842
7439-92-1	Lead	ICP-TR	08/04/99 23:58	2.63	U	2.63	7.50	5.00	WG30842
7439-96-5	Manganese	ICP-TR	08/04/99 23:58	1,140		1.06	37.5	5.00	WG30842
7440-23-5	Sodium	ICP-TR	08/04/99 23:58	557,000		453	12,500	5.00	WG30842

Qualifiers:

U = Undetected below MDL
B = Detected between MDL and RL*

*RL = Reporting Limit

955790201

Metals Analysis Results

000112

Prepared For:
Cytec Industries

STL Sample No.: 92973029
Matrix: Water

Units: ug/l

Client ID: BD072199-D
Sample Date: 07/21/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7429-90-5	Aluminum	ICP-TR	08/05/99 00:04	36.5	U	36.5	500	5.00	WG30842
7440-38-2	Arsenic	ICP-TR	08/05/99 00:04	8.93	B	7.63	20.0	5.00	WG30842
7439-89-6	Iron	ICP-TR	08/05/99 00:04	2,650		89.0	250	5.00	WG30842
7439-92-1	Lead	ICP-TR	08/05/99 00:04	2.63	U	2.63	7.50	5.00	WG30842
7439-96-5	Manganese	ICP-TR	08/05/99 00:04	868		1.06	37.5	5.00	WG30842
7440-23-5	Sodium	ICP-TR	08/05/99 00:04	458,000		453	12,500	5.00	WG30842

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790202



Severn Trent Laboratories
628 Route 10
Whippary, NJ 07981
Tel: (973) 428-8181
Fax: (973) 428-5222

REGULATORY FORMAT DATA PACKAGE

SAMPLING DATE: JULY 27, 1999

CYTEC INDUSTRIES

Project: CYTEC WARNERS

PREPARED BY:

SEVERN TRENT LABORATORIES

(CERTIFICATION NUMBER 14530)

STL JOB No. 20990-93053

VOLUME 1 of 1

Other Laboratory Locations:

● 149 Runway Road, North Billerica MA 01862
● 16203 Park Row, Suite 110, Houston TX 77064
● 55 South Park Drive, Colchester, VT 03446
● 315 Fullerton Avenue, Newburgh NY 12550

● 11 East Olive Road, Pensacola FL 32514
● Westfield Executive Park, 53 Southampton Road, Westfield MA 01085
● 200 Monroe Turnpike, Monroe, CT 06468

a part of
Severn Trent Services Inc.

955790204

45

BBC000015



AUGUST 27, 1999

20990-93053
BLASLAND, BOUCK & LEE, INC.
8 SOUTH RIVER ROAD
CRANBURY, NJ 08512

ATTENTION: GEOFFREY BANDOLA

The following samples were received for analysis by STL-NJ (Cert.#14530). These samples were received on and labeled as follows:

STL Sample No.:	Client ID:	Date Received
93053001	BB6	07/29/99
93053002	E8	07/29/99
93053003	I9	07/29/99
93053004	O10	07/29/99
93053005	I9MS	07/29/99
93053006	I9MSD	07/29/99
93053007	BD072799	07/29/99
93053008	FB072799	07/29/99

DATA RELEASE AUTHORIZED BY:

Carl W. Armbruster
Director of Operations

955790205

a part of
Severn Trent Services Inc



Severn Trent Laboratories
628 Route 10
Whippany, NJ 07981
Tel: (973) 428-8181
Fax: (973) 428-5222

STL - WHIPPANY LAB CERTIFICATIONS

STL - NJ possesses the following regulatory certification and is currently certified to perform analysis in accordance with regulations pertaining to these certifications. Certificates are on file at the laboratory.

State/Agency Certification	Lab ID Number
CLP Organics Contract	68D50011
Connecticut	PH0722
Maryland	195
New Jersey	14530
New York	10997
North Carolina	339
Pennsylvania	68-355
Rhode Island	178
USDA Permit	S-3295 Revised
Delaware	NJ323

rpdata\stlcert.for

Last Updated: 8/18/99

Other Laboratory Locations:

- 149 Rangeway Road, North Billerica MA 01862
- 16203 Park Row, Suite 110, Houston TX 77084
- 55 South Park Drive, Colchester, VT 05446
- 315 Fullerton Avenue, Newburgh NY 12550

- 11 East Olive Road, Pensacola FL 32514
- Westfield Executive Park, 53 Southampton Road, Westfield MA 01085
- 200 Monroe Turnpike, Monroe, CT 06468

a part of
Severn Trent Services Inc

955790206

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955790207



Severn Trent Laboratories
628 Route 10 Tel: (973) 428-8181
Whippany NJ 07981 Fax: (973) 428-5222

955790208

No. 71109

CHAIN OF CUSTODY

FIELD BOOK:

Pg 1 of 1

① Client: <u>Bostand, Beck & Lee, Inc.</u>	# OF CONTAINERS	⑭ Bill To: <u>Cytec Industries Inc</u>	⑮ ANALYSIS REQUIRED		For Lab Use Only	
② Project Name/no.: <u>Cytec Warners</u>		PO# <u>440.52.023.022</u>			Job No. <u>93083</u>	
③ Client Contact: <u>Geo Bandola</u>					Quote No. <u>93083</u>	
④ STL Contact: <u>Deanna Doster</u>				# of Coolers: <u>1</u>	Cooler Temp. (s): <u>1</u>	Custody Seal # (s): <u>1</u>
⑤ TAT: 1wk, 2wk, <u>3wk</u> , OTHER				Date Due: <u>7/28/99</u>	PM-NON-CONFORMANCE	
⑥ Proj. Type: NJPDES, NPDES, ISRA, CLP, CERCLA, RCRA, UST, <u>ACO</u> , MOA, OTHER				Preserved: <u>1</u> Temp: <u>1</u>	Container: <u>1</u> Volume: <u>1</u>	Broken: <u>1</u> Initials: <u>1</u>
⑦ Protocol: CLP, SW846, EPA 600 DW, OTHER				Holding Time: <u>1</u>	Other: <u>1</u>	Logged By: <u>1</u>
⑧ Reporting Type: <u>NJ Reg Format</u> , NJ Reduced Format, CLP, Level II, Level I (Data Sum), Other				DESCRIPTION		
⑨ Client ID (10 CHAR)	⑩ Date	⑪ Time	⑫ Mtx	⑬		
BBC	7/28/99	1545	SED	1	X	X
EB	7/28/99	1610	SED	1	X	X
I9	7/28/99	1630	SED	1	X	X
O10	7/28/99	1655	SED	1	X	X
I9 NS NSD	7/28/99	1630	SED	1	X	X
BD0 7 2 7 9 9	7/28/99	1715	AQ	3	2	1
FB0 7 2 7 9 9	7/28/99					
⑮ COMMENTS: (Please include hazards on site.) <u>Analyze Metals for As, Cu, Pb, Zn</u> <u>Analyze Pesticides for DDD, DDE, DDT</u>						
⑯ Sampled By: <u>Geo Bandola / BBC</u>		Signature: <u>[Signature]</u>		Custody Seal # (s)		Date/Time
Received By: <u>Jane Doster / STL</u>		Signature: <u>[Signature]</u>		Custody Seal # (s)		7/28/99
Relinquished By: <u>Jane Doster / STL</u>		Signature: <u>[Signature]</u>		Custody Seal # (s)		7/28/99 1230
Received By: <u>E. Doster</u>		Signature: <u>[Signature]</u>		Custody Seal # (s)		7/28/99 1745
Relinquished By:		Signature:		Custody Seal # (s)		7/29/99 1945
Received By:		Signature:		Custody Seal # (s)		
Mtx = Matrix of Sample. (AI=Air, AQ=Aqueous, LE=Leachate, ML=Misc Liquid, MS=Misc Solids, OIL, SE=Sediment, SL=Sludge, SO=Soil)						

100000

SEVERN TRENT LABORATORIES, Inc. - NEW JERSEY
SAMPLE RECEIPT VERIFICATION FORM

000002

JOB NUMBER: 93053 CLIENT BBC DATE RECEIVED: 7/29/99

OF SAMPLES 9 # OF COOLERS 1
CUSTODY SEALS: PRESENT / ABSENT INTACT / BROKEN TEMPERATURE BLANK PRESENT: YES NO

COOLER TEMP/S 3.4 COOLER OUTSIDE 2-6 ° C 2 PRESERVED ICE / BLUE ICE / NONE
IF OUTSIDE TEMP RANGE - WERE SAMPLES RECEIVED LESS THAN 4 HOURS FROM COLLECTION? YES NO

CHAIN OF CUSTODY PRESENT / ABSENT PROPERLY SIGNED, DATED, TIME: YES NO
SAMPLE TAGS: PRESENT / ABSENT RECEIVED BY: DRIVER IF SHIPPED AIRBILL PRESENT YES NO

COOLER RADIOACT. SCREEN BELOW 0.50 uR/hr YES NO (INFORM SAFETY OFFICER IMMED.)

YES NO SAMPLE BOTTLES INTACT
YES NO PROPER CONTAINERS PER ANALYSIS USED
YES NO SAMPLE LABELS INTACT
YES NO LABELS COMPLETE AND LEGIBLE (ID, DATE, TIME, SIGNATURE, PRESERVATIVE)
YES NO SAMPLES RECEIVED WITHIN HOLDING TIME
YES NO SAMPLES PROPERLY PRESERVED
YES NO NO BUBBLES PRESENT VOA WATER MATRIX NA
YES NO SUFFICIENT SAMPLE VOLUME RECEIVED
YES NO DRINKING H2O/TREATED H2O - CHECKED FOR RESIDUAL CHLORINE NA
(DOCUMENT ON pH VERIFICATION LOG FORM)

G.D. INITIAL 7/29/99 DATE - RUSH REPORT ISSUED BY NA
G.D. INITIAL 7/29/99 DATE - pH ANALYSIS PERFORMED BY NA
G.D. INITIAL 7/29/99 DATE - % MOISTURE PERFORMED BY NA
G.D. INITIAL 7/29/99 DATE - SAMPLE COMPOSITE PERFORMED BY NA

NOTE AND ITEMIZE BY SAMPLE AFFECTED, DISCREPANCIES AND NONCONFORMANCES FOUND: _____

PROJECT MANAGER INFORMED OF DISCREPANCIES: _____ INITIALS _____ DATE NA

SUBCONTRACTING OF ANALYSIS REQUIRED YES NO SUB COC COMPLETED YES NO NA
SUBCONTRACTED SAMPLES SHIPPED YES NO CARRIER USED _____

SAMPLE RECEIPT, LABELING AND STORAGE PROCEDURES PERFORMED BY: E. J. [Signature]

FINAL INSPECTION

BOTTLES CORRECTLY LABELED YES NO REVIEWED BY [Signature] DATE: 7/29/99
INTERNAL CHAIN OF CUSTODY INITIATED YES NO
ALL SIGNATURES AND DATES COMPLETE YES NO

CLIENT INFORMED OF DISCREPANCIES/NONCONFORMANCES BY PM _____ DATE _____ TIME _____

NAME CLIENT REPRESENTATIVE INFORMED _____ METHOD: PHONE _____ FAX _____

CORRECTIVE ACTION REQUESTED BY CLIENT: _____

CORRECTIVE ACTION TAKEN: _____

PROJECT MANAGER APPROVED VERIFICATION FORM COMPLETE: [Signature] DATE 7/29/99
Print name D. D. [Signature]

955790209

FORM 1
PEST/PCB ORGANICS ANALYSIS DATA SHEET

000032

CLIENT ID

BB6

Lab Name: IEA-NJ

Client: Cytex Industries

Matrix: (soil/water): SEDIM

Lab Sample ID: 93053001

Sample wt/vol: 30.6 (g/ml) g

Lab File ID: D2B610_032

% Moisture: 30 decanted:

Date Received: 07/29/99

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 08/10/99

Concentrated Extract Volume: 10000 (uL)

Date Analyzed: 08/17/99

Injection Volume: 1.0 (uL)

Dilution Factor: 10.00

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: Y

CAS NO.

COMPOUND

CONCENTRATION UNITS: Q
(ug/L or ug/Kg) UG/KG

72-54-8	4,4'-DDD	47	U
72-55-9	4,4'-DDE	68	
50-29-3	4,4'-DDT	500	

000041

FORM 1
PEST/PCB ORGANICS ANALYSIS DATA SHEET

CLIENT ID

E8

Lab Name: IEA-NJClient: Cytec IndustriesMatrix: (soil/water): SEDIMLab Sample ID: 93053002Sample wt/vol: 30 (g/ml) gLab File ID: D2B610_033% Moisture: 59 decanted: Date Received: 07/29/99Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 08/10/99Concentrated Extract Volume: 10000 (uL)Date Analyzed: 08/17/99Injection Volume: 1.0 (uL)Dilution Factor: 10.00GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: Y

CAS NO. COMPOUND

CONCENTRATION UNITS: Q
(ug/L or ug/Kg) UG/KG

72-54-8	4,4'-DDD	95	
72-55-9	4,4'-DDE	37	J
50-29-3	4,4'-DDT	590	

000051

FORM 1
PEST/PCB ORGANICS ANALYSIS DATA SHEET

CLIENT ID

I9

Lab Name: IEA-NJClient: Cytec IndustriesMatrix: (soil/water): SEDIMLab Sample ID: 93053003Sample wt/vol: 30 (g/ml) gLab File ID: D2B610_034% Moisture: 60 decanted: Date Received: 07/29/99Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 08/10/99Concentrated Extract Volume: 10000 (uL)Date Analyzed: 08/17/99Injection Volume: 1.0 (uL)Dilution Factor: 10.00GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: Y

CAS NO.

COMPOUND

CONCENTRATION UNITS: Q
(ug/L or ug/Kg) UG/KG

72-54-8	4,4'-DDD	83	U
72-55-9	4,4'-DDE	160	
50-29-3	4,4'-DDT	330	

000062

FORM 1
PEST/PCB ORGANICS ANALYSIS DATA SHEET

CLIENT ID

010

Lab Name: IEA-NJClient: Cytec IndustriesMatrix: (soil/water): SOILLab Sample ID: 93053004Sample wt/vol: 30 (g/ml) gLab File ID: D2B610_035% Moisture: 52 decanted: Date Received: 07/29/99Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 08/10/99Concentrated Extract Volume: 10000 (uL)Date Analyzed: 08/17/99Injection Volume: 1.0 (uL)Dilution Factor: 10.00GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: Y

CAS NO.

COMPOUND

CONCENTRATION UNITS: Q
(ug/L or ug/Kg) UG/KG

72-54-8	4,4'-DDD	97	
72-55-9	4,4'-DDE	72	
50-29-3	4,4'-DDT	240	

Metals Analysis Results

000089

Prepared For:
Cytec Industries

STL Sample No.: 93053001

Matrix: Sediment

Percent Solids: 69.7

Units: mg/kg

Client ID: BB6

Sample Date: 07/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7440-38-2	Arsenic	ICP-TR	08/18/99 12:33	9.77		0.456	1.15	1.00	WG30948
7440-50-8	Copper	ICP-TR	08/18/99 12:33	104		0.0640	3.59	1.00	WG30948
7439-92-1	Lead	ICP-TR	08/18/99 12:33	88.7		0.175	0.430	1.00	WG30948
7440-66-6	Zinc	ICP-TR	08/18/99 12:33	203		1.19	4.30	1.00	WG30948

All Concentrations, RL's, and MDL's are corrected for Percent Solids

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL

*RL = Reporting Limit

955790214

Metals Analysis Results

000090

Prepared For:
Cytec Industries

STL Sample No.: 93053002

Matrix: Sediment

Percent Solids: 41.5

Units: mg/kg

Client ID: E8

Sample Date: 07/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7440-38-2	Arsenic	ICP-TR	08/18/99 12:39	29.0		0.766	1.93	1.00	WG30948
7440-50-8	Copper	ICP-TR	08/18/99 12:39	404		0.107	6.02	1.00	WG30948
7439-92-1	Lead	ICP-TR	08/18/99 12:39	241		0.294	0.723	1.00	WG30948
7440-66-6	Zinc	ICP-TR	08/18/99 12:39	465		2.00	7.23	1.00	WG30948

All Concentrations, RL's, and MDL's are corrected for Percent Solids

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790215

Metals Analysis Results

000091

Prepared For:
Cytec Industries

STL Sample No.: 93053003

Matrix: Sediment

Percent Solids: 40.2

Units: mg/kg

Client ID: I9

Sample Date: 07/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7440-38-2	Arsenic	ICP-TR	08/18/99 12:44	61.7		0.791	1.99	1.00	WG30948
7440-50-8	Copper	ICP-TR	08/18/99 12:44	869		0.111	6.22	1.00	WG30948
7439-92-1	Lead	ICP-TR	08/18/99 12:44	427		0.303	0.746	1.00	WG30948
7440-66-6	Zinc	ICP-TR	08/18/99 12:44	915		2.06	7.46	1.00	WG30948

All Concentrations,RL's, and MDL's are corrected for Percent Solids

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790216

Metals Analysis Results

000092

Prepared For:
Cytec Industries

STL Sample No.: 93053004

Matrix: Sediment

Percent Solids: 48.4

Units: mg/kg

Client ID: O10

Sample Date: 07/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7440-38-2	Arsenic	ICP-TR	08/18/99 13:32	32.3		0.657	1.65	1.00	WG30948
7440-50-8	Copper	ICP-TR	08/18/99 13:32	315		0.0921	5.16	1.00	WG30948
7439-92-1	Lead	ICP-TR	08/18/99 13:32	211		0.252	0.620	1.00	WG30948
7440-66-6	Zinc	ICP-TR	08/18/99 13:32	429		1.71	6.20	1.00	WG30948

All Concentrations, RL's, and MDL's are corrected for Percent Solids

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790217

Metals Analysis Results

000093

Prepared For:
Cytec Industries

STL Sample No.: 93053005MS

Matrix: Sediment

Percent Solids: 45.0

Units: mg/kg

Client ID: I9MSMS

Sample Date: 07/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7440-38-2	Arsenic	ICP-TR	08/18/99 12:56	154		0.707	1.78	1.00	WG30948
7440-50-8	Copper	ICP-TR	08/18/99 12:56	724		0.0991	5.56	1.00	WG30948
7439-92-1	Lead	ICP-TR	08/18/99 12:56	459		0.271	0.667	1.00	WG30948
7440-66-6	Zinc	ICP-TR	08/18/99 12:56	821		1.84	6.67	1.00	WG30948

All Concentrations, RL's, and MDL's are corrected for Percent Solids

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790218

Metals Analysis Results

000094

Prepared For:
Cytec Industries

STL Sample No.: 93053006DUP

Matrix: Sediment

Percent Solids: 45.0

Units: mg/kg

Client ID: I9MSDDUP

Sample Date: 07/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7440-38-2	Arsenic	ICP-TR	08/18/99 12:50	58.3		0.707	1.78	1.00	WG30948
7440-50-8	Copper	ICP-TR	08/18/99 12:50	718		0.0991	5.56	1.00	WG30948
7439-92-1	Lead	ICP-TR	08/18/99 12:50	374		0.271	0.667	1.00	WG30948
7440-66-6	Zinc	ICP-TR	08/18/99 12:50	832		1.84	6.67	1.00	WG30948

All Concentrations, RL's, and MDL's are corrected for Percent Solids

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790219

Metals Analysis Results

000095

Prepared For:
Cytec Industries

STL Sample No.: 93053007

Matrix: Sediment

Percent Solids: 42.4

Units: mg/kg

Client ID: BD072799

Sample Date: 07/27/99

CAS No.	Analyte	Instrument	AnalyzeDate	Concentration	Qual	MDL	RL*	Dilution	Batch
7440-38-2	Arsenic	ICP-TR	08/18/99 13:38	25.9		0.750	1.89	1.00	WG30948
7440-50-8	Copper	ICP-TR	08/18/99 13:38	328		0.105	5.90	1.00	WG30948
7439-92-1	Lead	ICP-TR	08/18/99 13:38	212		0.288	0.708	1.00	WG30948
7440-66-6	Zinc	ICP-TR	08/18/99 13:38	445		1.95	7.08	1.00	WG30948

Qualifiers:

U = Undetected below MDL

B = Detected between MDL and RL*

*RL = Reporting Limit

955790220



STL Envirotech
777 New Durham Road
Edison, NJ 08817
Tel: (732) 549-3900
Fax: (732) 549-3679
www.stl-inc.com

November 22, 1999

Blasland, Bouck and Lee - NJ
8 South River Road
Cranbury, NJ 08512-9502

Attention: Mr. Geoffrey Bandola

Re: Job No. U683 - Cytec Warners

Dear Mr. Bandola:

Enclosed are the results you requested for the following sample(s) received at our laboratory on October 29, 1999:

<u>Lab No.</u>	<u>Client ID</u>	<u>Analysis Required</u>
165191	DPG-2D	PP VOA, Al, As, Fe, Mn, Na, Pb
165192	FB102599	PP VOA, Al, As, Fe, Mn, Na, Pb
165193	TB102599	PP VOA
165194	DPG-2D-Dis	Al, As, Fe, Mn, Na, Pb
165195	Field_Blank-Dis	Al, As, Fe, Mn, Na, Pb

If you have any questions please contact your Project Manager, Paul Simms, at (732) 549-3900.

Very truly yours,

Michael J. Urban
Laboratory Manager

Other Laboratory Locations:

- 149 Rangeway Road, North Billerica MA 01862
- 16203 Park Row, Suite 110, Houston TX 77084
- 200 Monroe Turnpike, Monroe CT 06468
- 120 Southcenter Court, Suite 300, Morrisville NC 27560

- 11 East Olive Road, Pensacola FL 32514
- Westfield Executive Park, 53 Southampton Road, Westfield MA 01085
- 628 Route 10, Whippany NJ 07981
- 55 South Park Drive, Colchester VT 05446

a part of
Severn Trent Services Inc.

955790222

BBC000016

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955790223

CHAIN OF CUSTODY

FIELD BOOK: 0683 Pg 1 of 1

1	Client: <u>BBL</u>	# O F C O N T A I N E R S	14	Bill To <u>Cytec Industries Inc</u>	For Lab Use Only														
2	Project Name/no. <u>Cytec Warners</u>									Job No. <u>94281</u>									
3	Client Contact: <u>Geoff Bandola</u>									Quote No. _____									
4	STL Contact: <u>Deanna Dosta</u>									# of Coolers: _____									
5	TAT: 1wk, 2wk, <u>3wk</u> , OTHER _____									Cooler Temp.(s) _____									
6	Proj. Type: NJPDES, NPDES, ISRA, CLP, CERCLA, RCRA, UST, <u>ACO</u> , MOA, OTHER _____								Custody Seal #(s) _____										
7	Protocol: CLP, SW846, <u>EPA 600</u> DW, OTHER _____								Date Due: _____										
8	Reporting Type: <u>NJ Reg Format</u> , NJ Reduced Format, CLP, Level II, Level I (Data Sum), Other _____																		
9	Client ID (10 CHAR)	10	Date	11	Time	12	Mtx												
	DP 0 - 2 D		10/25/99			AQ	5	W	1	1	TOT	DISS							
	FB 1 0 2 5 9 9		10/25/99			AQ	5	W	1	1	165/91	165/94							
	TB 1 0 2 5 9 9		10/25/99			AQ	3	W	1	1	165/92	165/95							
											165/93								
COMMENTS: (Please include hazards on site.)																			
<u>VOA samples for DPG-2D are UNPRESERVED!</u> Analyze VOA for: CS2, MECL, Acetone, Benzene, Chlorobenzene, Xylenes																			
Analyze Metals for: Al, As, Fe, Pb, Mn, Na																			
OK TO ANALYZE at STL - EDISON CO. per 11/1/99																			
Print Name and Company																			
Sampled By: <u>Geoffrey Bandola / BBL</u> Signature: <u>[Signature]</u> Custody Seal # (s): <u>7521</u> Date/Time: <u>10/25/99 1400</u>																			
Received By: <u>AL DACHILUW</u> STL																			
Relinquished By: <u>AL DACHILUW</u>																			
Received By: <u>EUGENE MALANIAT</u> STL																			
Relinquished By: <u>AL DACHILUW</u>																			
Received By: <u>AL DACHILUW</u> STL																			
Mtx = Matrix of Sample. (AI=Air, AQ=Aqueous, LE=Leachate, ML=Misc Liquid, MS=Misc Solids, OIL, SE=Sediment, SL=Sludge, SO=Soil)																			



Client ID: DPG-2D
Site: Cytec Warners

Lab Sample No: 165191
Lab Job No: U683

Date Sampled: 10/25/99
Date Received: 10/29/99
Date Analyzed: 10/31/99
GC Column: DB624
Instrument ID: VOAMS6.i
Lab File ID: f6462.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/MS
METHOD 624

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
Methylene Chloride	ND	5.0
Acetone	ND	12
Carbon Disulfide	ND	5.0
Benzene	72	1.6
Chlorobenzene	7.9	0.9
Xylene (Total)	6.2	1.8

955790225



Client ID: DPG-2D
Site: Cytec Warners

Lab Sample No: 165191
Lab Job No: U683

Date Sampled: 10/25/99
Date Received: 10/29/99

Matrix: WATER
Level: LOW

METALS ANALYSIS

<u>Analyte</u>	<u>Analytical Result Units: ug/l</u>	<u>Instrument Detection Limit</u>	<u>M</u>
Aluminum	ND	176	P
Arsenic	ND	10.8	P
Iron	844	111	P
Lead	ND	6.3	P
Manganese	593	3.0	P
Sodium	4720000	7036	P

M Column - Method Code (See Section 2 of Report)

955790226



Client ID: FB102599
Site: Cytec Warners

Lab Sample No: 165192
Lab Job No: U683

Date Sampled: 10/25/99
Date Received: 10/29/99
Date Analyzed: 11/01/99
GC Column: DB624
Instrument ID: VOAMS6.i
Lab File ID: f6514.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 624

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
Methylene Chloride	1.3	1.0
Acetone	ND	2.4
Carbon Disulfide	ND	1.0
Benzene	ND	0.3
Chlorobenzene	ND	0.2
Xylene (Total)	ND	0.3

955790227



Client ID: FB102599
Site: Cytec Warners

Lab Sample No: 165192
Lab Job No: U683

Date Sampled: 10/25/99
Date Received: 10/29/99

Matrix: WATER
Level: LOW

METALS ANALYSIS

<u>Analyte</u>	<u>Analytical Result Units: ug/l</u>	<u>Instrument Detection Limit</u>	<u>M</u>
Aluminum	ND	58.6	P
Arsenic	ND	3.6	P
Iron	47.5	37.1	P
Lead	ND	2.1	P
Manganese	ND	1.0	P
Sodium	ND	352	P

M Column - Method Code (See Section 2 of Report)

955790228



Client ID: TB102599
Site: Cytec Warners

Lab Sample No: 165193
Lab Job No: U683

Date Sampled: 10/25/99
Date Received: 10/29/99
Date Analyzed: 11/01/99
GC Column: DB624
Instrument ID: VOAMS6.i
Lab File ID: f6515.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 1.0

VOLATILE ORGANICS - GC/MS
METHOD 624

<u>Parameter</u>	Analytical Result <u>Units: ug/l</u>	Method Detection
		Limit <u>Units: ug/l</u>
Methylene Chloride	2.0	1.0
Acetone	ND	2.4
Carbon Disulfide	ND	1.0
Benzene	ND	0.3
Chlorobenzene	ND	0.2
Xylene (Total)	ND	0.3

955790229



Client ID: DPG-2D-Dis
Site: Cytec Warners

Lab Sample No: 165194
Lab Job No: U683

Date Sampled: 10/25/99
Date Received: 10/29/99

Matrix: WATER
Level: LOW

METALS ANALYSIS

<u>Analyte</u>	Analytical Result <u>Units: ug/l</u>	Instrument Detection <u>Limit</u>	<u>M</u>
Aluminum	ND	176	P
Arsenic	ND	10.8	P
Iron	498	111	P
Lead	ND	6.3	P
Manganese	551	3.0	P
Sodium	4090000	7036	P

M Column - Method Code (See Section 2 of Report)

955790230



Client ID: Field Blank-Dis
Site: Cytec Warners

Lab Sample No: 165195
Lab Job No: U683

Date Sampled: 10/25/99
Date Received: 10/29/99

Matrix: WATER
Level: LOW

METALS ANALYSIS

<u>Analyte</u>	Analytical Result <u>Units: ug/l</u>	Instrument Detection <u>Limit</u>	<u>M</u>
Aluminum	ND	58.6	P
Arsenic	ND	3.6	P
Iron	37.4	37.1	P
Lead	ND	2.1	P
Manganese	1.3	1.0	P
Sodium	ND	352	P

M Column - Method Code (See Section 2 of Report)

955790231

Client ID: DPG-2D
Site: Cytec Warners

Lab Sample No: 165191
Lab Job No: U683

Date Sampled: 10/25/99
Date Received: 10/29/99
Date Analyzed: 10/31/99
GC Column: DB624
Instrument ID: VOAMS6.i
Lab File ID: f6462.d

Matrix: WATER
Level: LOW
Purge Volume: 5.0 ml
Dilution Factor: 5.0

VOLATILE ORGANICS - GC/MS
METHOD 624

<u>Parameter</u>	<u>Analytical Result</u> <u>Units: ug/l</u>	<u>Method Detection</u> <u>Limit</u> <u>Units: ug/l</u>
Methylene Chloride	ND	5.0
Acetone	ND	12
Carbon Disulfide	ND	5.0
Benzene	72	1.6
Chlorobenzene	7.9	0.9
Xylene (Total)	6.2	1.8

955790232

Proprietary to the United Press International 1983

August 5, 1983, Friday, AM cycle

SECTION: Regional News

DISTRIBUTION: New Jersey

LENGTH: 298 words

BYLINE: By JONATHAN S. LANDAY

DATELINE: TRENTON

BODY:

Laboratory analysis of samples taken from an American Cyanamid Co. plant in Linden and an area in Kearny next to the Passaic River have found no traces of toxic dioxin contamination, it was announced Friday.

Environmental Protection Commissioner Robert Hughey said tests were run on seven samples of outside soil, dust from buildings and sediment from a waste water dump at the American Cyanamid facility and all produced negative results.

It was one of two plants owned by the company where testing for dioxin was ordered because the substance can occur as an impurity in trichlorophenol, a chemical used at both, and Dicapthon, a pesticide which they produce.

The second facility, located in Bound Brook, was determined to be dioxin-free last week.

The tests of samples taken in the area of a storm water drain at the bottom of Sanford Avenue, in Kearny, were the second series performed because a first round produced an "unconfirmed" reading of 20 parts per billion.

James Staples, a spokesman for the state Department of Environmental Protection, said the second round of tests revealed no traces of dioxin.

He said officials believe the reading obtained in the first tests was either the result of a mistake made in the laboratory or was recorded in a clerical error.

The first tests of samples from the area around the drain were performed because it is located directly across the Passaic River from the defunct Chemical Alkali plant, in Newark, which produced the herbicide Agent Orange in the 1960s for the U.S. Army.

Dioxin contamination ranging from 100 ppb to 50,000 have been measured at the facility and traces of up to 520 ppb have been detected in the surrounding area.

Tests have also revealed low-level contamination in sediment taken from the riverbed.

LANGUAGE: ENGLISH

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Statistics:**Public Company****Incorporated:** July 22, 1907**Employees:** 36,432**Sales:** \$3.816 billion**Stock Exchanges:** New York London Basle Amsterdam Frankfurt Geneva Lausanne Zurich

SICs: 2834 Pharmaceutical Preparations; 2879 Agricultural Chemicals Nec; 3842 Surgical Appliances & Supplies; 2899 Chemical Preparations Nec; 8731 Commercial Physical Research; 2836 Biological Products Except Diagnostic; 2821 Plastics Materials & Resins

Company History:

When William Bell became president of American Cyanamid in 1922, he is reported to have said "even a fool could see what we need is diversification." Thus began a prolonged program designed to vary the company's products and services. Once solely a manufacturer of fertilizer, American Cyanamid now makes products as diverse as Pine Sol cleaner and L'Air du Temps perfume.

American Cyanamid was founded in 1907 by Frank Washburn, a Cornell-educated civil engineer. Cyanamid is a compound of lime, carbide, and nitrogen that is suitable for use in fertilizer. Washburn had been a consultant to a nitrate operation in Chile and had also built three dams in the southern United States. Intent on discovering new industrial uses for hydro-electric power, he saw the perfect opportunity in a revolutionary new way of extracting nitrogen from the air through use of an electric arc. He bought the North American rights to this process, as well as the rights to a new method of binding nitrogen, carbide, and lime. For Washburn, the beauty of these new methods of producing cyanamid lay in the fact that they required large amounts of electricity. He had originally planned to build his first plant and the dam it would require in Alabama, but his hydro-electric project became increasingly controversial. For this reason, the first Cyanamid facility was built in Ontario, Canada, its power supplied by Niagara Falls.

The first carload of cyanamid rolled out of the plant on December 4, 1909. After seven years of producing only this product, Washburn traded holdings in American Cyanamid for stock in Ammo-Phos, a company owned by James Duke (of Duke University). This arrangement provided American Cyanamid with an inexpensive supply of phosphoric acid. Phosphoric acid, combined with the nitrogen in cyanamid, produces ammonium phosphate, a good plant food.

The demand for American Cyanamid's products came almost exclusively from those people engaged in producing agricultural products. Farmers were especially affected by the poor economy that followed World War I. American Cyanamid's sales suffered as a result. The once-busy Ontario plant began to operate at 14 percent of its previous capacity. Washburn became seriously ill in 1921 and died the following year. His successor, a Quaker lawyer named William Bell, did not have an easy job ahead of him.

When Bell became head of American Cyanamid in 1922, the company had two principal raw materials: calcium cyanamid and phosphate rock, which

were combined to form products for use in agriculture. The challenge for Bell was to find uses for these materials in less cyclical industries. Fortunately for American Cyanamid, while the economic aftermath of World War I had reduced the demand for fertilizers, it had increased the demand for cyanide, which had formerly been supplied by Germany. At the time, cyanide was principally used in the extraction of gold and silver from their ores. American Cyanamid began to manufacture cyanide from cyanamid, thereby broadening its market by supplying mining companies with a necessary chemical. The company also started to produce hydrocyanic acid, an important ingredient in the vulcanization of rubber.

By the mid-1920s American Cyanamid's expansion of its line of products, along with a revival in the fertilizer industry, launched the company into a period of growth. In the first three or four years of Bell's leadership the company had pursued a conservative policy of vertical diversification; that is, it concentrated on finding new markets for the same basic material, cyanamid. However, during the 1920s, general improvement in the economy, coupled with an increase in the value of American Cyanamid's securities, enabled the company to embark on a slightly more aggressive plan of diversification. American Cyanamid, a public company, began to exchange its common stock for holdings in other companies. Some of the first companies acquired in this way were Kalbfleisch (heavy chemicals), Selden (sulfuric acid), and Calco (dyes). In retrospect, Lederle Labs, acquired in 1930, was the company's most important acquisition.

The period between the post-war deflation and the crash of the U.S. stock market in 1929 was a time of expansion for many companies. American Cyanamid, with a total of 30 subsidiaries, was one of the most diversified companies in the chemical industry. Chemical companies as a whole weathered the Depression well in comparison with other businesses. In the mid-1930s, direct sales to consumers in drugs and plastics helped to offset the sharp decline in the industrial demand for American Cyanamid's products.

With the onset of World War II American Cyanamid's fortunes improved considerably. The war cut off trade between American companies and their European suppliers so American Cyanamid enjoyed an expanded domestic market. The bulk of the company's business, however, was from the government. American Cyanamid's most important contributions to the war effort came from their pharmaceutical division, which supplied typhus vaccine, gangrene anti-toxin, and dried blood plasma to the armed forces. A subsidiary, Davis and Geck, was a major supplier of surgical sutures.

American Cyanamid received its share of commendations for its part in the war effort; however, questions were raised about the size of the company's financial rewards. In 1942 the parent company was charged with a violation of anti-trust laws and fined \$453,461, a large fine considering that American Cyanamid's net profit for the previous year was a little more than \$5.6 million. Bell, writing in the company's annual report, was reticent in discussing the affair, but he did hint that Calco (a subsidiary that produced dyes) was involved, and that a member of the board of directors had been indicted.

The company had a good year in 1950 when its sales increased from \$237 million to \$322 million. This increase in sales was largely due to a series of breakthroughs made by Lederle Labs. In 1947 Lederle researchers succeeded in synthesizing vitamin B. In 1948 they discovered Aureomycin, an antibiotic that was used to treat pneumonia. By 1953 they were producing tetracycline, one of the first broad-spectrum antibiotics. An oral polio vaccine went on the market in 1954. The demand for Lederle's vaccines and antibiotics was such that new plants were built to keep up with the demand, both at home and abroad. In 1957, for instance, plants to manufacture Lederle's antibiotics were built in England, Brazil, and Argentina. Growth was slow during the 1950s for many of Cyanamid's products, and overseas pharmaceutical sales were important to the company's financial stability. At times Lederle accounted for almost half of the company's profits.

During the 1950s the leadership of American Cyanamid changed four times. William Bell died in 1950 and his replacement died within the year. Kenneth Towe took over, but in 1957 he moved to the position of chairman of the board. While the top executives were busy switching places, the workers were frequently on strike. There were four work stoppages in 1954 alone.

In the early 1960s American Cyanamid received increased attention from the press because of its new corporate headquarters in Wayne, New Jersey. Its major divisions are scattered around New York, New Jersey, and Connecticut, and it has subsidiaries in countries all around the world. Industry analysts have remarked, however, on the remarkable coordination that existed within the company.

The 1960s was not a particularly good decade for American Cyanamid or the larger chemical industry. In 1967 American Cyanamid suffered a major setback when it was convicted on the charge of restraint of trade. Along with Pfizer and Bristol-Myers, American Cyanamid was accused of conspiring to monopolize the marketing and manufacturing of tetracycline from 1953 to 1961. The company finally paid a fine of \$48.5 million, which represented more than 50 percent of the net profit for that year.

Despite its legal difficulties and conservative fiscal policies, the decade had some bright spots. In the 1960s, part of the formula for Breck hair conditioner was discovered in the textile labs, while the chemical basis for an anti-tuberculosis drug was discovered by chemists working on products for the rubber industry.

For American Cyanamid, the 1970s began with a slump in profits. Industrial sales were down, in part due to a series of prolonged strikes in the rubber and automobile industries. As petroleum companies diversified into chemicals, an overcrowded market developed that depressed chemical prices at a time when inflation had increased operating expenses.

During the 1970s Lederle Labs continued to carry the company. The consumer products division, which had a number of lucrative brands, began to lose a portion of its market share. The best-selling Breck Shampoo was overtaken by Johnson's Baby Shampoo and Prell; Davis and Geck had once led the market in sutures, but it fell behind products of rival Johnson and Johnson.

The company was also affected by unfavorable publicity from labor disputes and environmental abuses. In 1973 the Georgia State Water Quality Control Board forced Cyanamid to stop dumping sulfuric acid in the Wilmington and Savannah rivers, a practice that the state charged was killing

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fish. When workers at the Bound Brook, New Jersey, plant charged in 1978 that employee health was being compromised by exposure to carcinogens, they found management unsympathetic. 1,300 workers decided to strike in order to protest health hazards at the plant only to be told by plant manager Eldon Knappe that "we don't run a health spa." When the company decided that exposure to lead compounds at the Willow Island, Virginia, pigments plant might cause birth defects, women of child-bearing age in the plant were ordered to quit, accept demotion, or be sterilized. A large amount of adverse publicity resulted from this last incident after five women admitted they had themselves sterilized in order to keep their jobs.

Whereas the strategy of American Cyanamid had once been to diversify, the strategy of the 1980s was to eliminate unprofitable product lines. President George Sella sold the Formica and titanium divisions because their markets were too cyclical. Sella put a greater emphasis on research as well. The increase in research and development began in 1979 and began to show results. Lederle Labs continued its status as a leading company in the American Cyanamid family, racking up more than 40 percent of Cyanamid's earnings some years.

In the mid-1980s American Cyanamid move increasingly into pharmaceuticals via purchases and joint ventures. It bought 49.9 percent of Langford Labs, a Canadian company specializing in veterinary biologicals, and signed an agreement to jointly develop and market veterinary products with Enzon. It bought Acufex Microsurgical, a medical equipment manufacturer for \$19 million, Storz Instrument for \$100 million, and then, in mid-1986, formed a medical devices division. The firm signed a \$7.5 million agreement with Britain's Celltech Ltd. to produce a new generation of monoclonal antibodies. Researchers hoped to use the antibodies to deliver cancer drugs directly to affected sights in the body. The two firms planned to eliminate the parts of the antibodies not involved in delivering the drugs, improving their effectiveness and lessening allergic reactions.

Cyanamid moved into other high-tech areas it believed would grow in the future. In 1986 it bought 75 percent of Applied Solar Energy from Chesebrough-Pond for \$38 million. At the same time, the firm was moving out of the lower-tech chemical businesses it had been engaged in for years. Its calcium carbonate business was sold to Iowa Limestone, while its dicalcium phosphate business went to Occidental Chemical and its lead chemical plant went to Cookson America. Cyanamid sold its phosphate rock processing plants to International Minerals and Chemical and its lead chemical business to Anzon Industries.

Since consumer products were less cyclical than its chemical business, the firm invested in expanding them, rolling out Pine-Sol spray cleaner and three new products in the Combat insecticide line.

As the restructuring progressed and the U.S. economy grew, profits for 1987 climbed to \$275.6 million from \$202.5 million in 1986. In 1988 Cyanamid formed a biotechnology research and development consortium with six firms to focus on fermentation technology. The following year the firm made its biggest investment yet in biotechnology when it acquired Praxis Biologics, a vaccine manufacturer, for \$238 million in stock. The purchase brought Cyanamid products like Praxis' meningitis vaccine into the Cyanamid fold. Cyanamid was already putting its biotech expertise to work through work on herbicides and growth hormones for cows.

In 1990 the company took a major step toward making drugs and agricultural products its most important focus when it sold the product lines in its Shulton consumer products unit to various buyers. The Old Spice toiletries division was sold to Procter & Gamble for over \$300 million. Clorox Co. bought Combat Insecticide and Pine-Sol cleanser for \$465 million, a price many industry analysts believed to be an excellent deal for Cyanamid.

Many of the Shulton products were leading brands or had high name recognition, but with total sales of \$600 million a year, the division was far too small to compete effectively against consumer products giants like Procter & Gamble. Shulton had an operating margin of about eight percent, while the medical division had a 17.5 percent margin. The medical division accounted for about 50 percent of 1990's \$4.5 billion in sales, a healthy figure but still small compared to the medical divisions of rivals such as Bristol-Myers Squibb. Agricultural products sales were also booming, as the U.S. farm economy picked up and Cyanamid's newest insecticides and herbicides proved popular.

In 1991, with the U.S. chemical industry in a prolonged downturn, Cyanamid consolidated its chemicals business into a separate division called Cytec Industries, based in West Patterson, New Jersey. The company's chemicals business pulled in 1991 sales of \$1.1 billion, with profits of about \$30 million.

To help increase its presence in the drug market, Cyanamid bought 53.5 percent of Immunex Corp. in 1992. Immunex, a California biotech company, was strong in anti-cancer research, and Cyanamid soon combined Immunex's anti-cancer division with its own. Sales for 1992 reached a record of \$5.27 billion, with revenue of \$395 million.

In 1993 Albert J. Costello, a chemist with 36 years of experience at Cyanamid, was named to succeed Sella. At the same time, the Clinton administration's attack on drug prices cast new uncertainties on Cyanamid's strategy of emphasizing drug sales. Cyanamid and other drug companies reacted by sending lobbyists to Washington to persuade lawmakers they were not the villains behind rising medical costs.

With the 1993 announcement that it would sell Cytec to its shareholders, Cyanamid virtually finished its transformation from a chemical to a drug and agricultural products company. American Cyanamid now awaits the outcome of the health care reform struggle, which is certain to have a significant impact on the company.

Principal Subsidiaries: Acufex Microsurgical, Inc.; Cyanamid Inter-American Corp.; Cyanamid International Corp.; Cyanamid Metals Corp.; Cyanamid International Sales Corp.; Cyanamid Overseas Corp.; Davis & Geck, Inc.; Glendale Protective Technologies, Inc.; Jacqueline Cochran, Inc.; Lederle Parenterals, Inc.; Lederle Piperacillin, Inc.; La Prairie, Inc.; Shulton, Inc.; Toiletries, Inc. The company also lists subsidiaries in the following countries: Australia, Bermuda, Brazil, Canada, Costa Rica, France, India, Italy, Japan, Korea, Mexico, The Netherlands, Netherlands Antilles, Pakistan, Peru, Philippines, Portugal, Switzerland, United Kingdom, Venezuela, and West Germany.

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Source: *International Directory of Company Histories*, Vol. 8. St. James Press, 1994.

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Cytec Industries Inc.

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<http://www.cytec.com>

Statistics:
Public Company
Incorporated: 1991
Employees: 5,200
Sales: \$1.29 billion (1997)
Stock Exchanges: New York
Ticker Symbol: CYT
SICs: 2899 Chemical Preparations, Not
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Company Perspectives:

Cytec's diverse portfolio of products and technologies is supported by vertical integration, which distinguishes us from most other specialty chemical companies. We produce the major building block chemicals used as intermediates in manufacturing many of our specialty chemicals and specialty materials. This provides us with a better balance through economic cycles.

Company History:

A leading chemicals company, Cytec Industries Inc. develops, manufactures, and markets specialty chemicals, specialty materials, and building block chemicals. Cytec's products were sold to end users involved in a variety of industries, including water treatment, paper, mining, coatings, plastics, aerospace, textile, and automotive. The company's distinctive quality was its vertically integrated operations, which manufactured the raw materials—the building block chemicals—used in Cytec's finished chemical products. During the mid-1990s Cytec divested a number of businesses, notably its acrylic fibers business, and concentrated on specialty chemicals and specialty materials. By the late 1990s the company's global operations included sales, laboratory, and manufacturing facilities in 36 countries.

Origins

New Jersey-based American Cyanamid formed Cytec Industries as a separate business unit in 1991, grouping its chemicals business within the new company. When Cytec was created, it joined a number of other separately run companies operating under American Cyanamid's vast, life sciences corporate umbrella. These other companies included Lederle Pharmaceuticals; Davis & Geck, a medical device company; Storz, an ophthalmic and pharmaceutical company; and Praxis, a medical supply firm. Along with these companies and other concerns involved in agricultural products businesses, Cytec had to compete for American Cyanamid's resources. It was a struggle for the parent company's attention, a struggle that Cytec's new leader, Darryl D. Fry, had little hope of winning. Among pharmaceuticals, agricultural products, and chemicals, chemicals "ranked a low third," according to Fry, in the minds of American Cyanamid's senior executives, putting the new company and its new manager in an unenviable position. Further, it soon became apparent to Fry that American Cyanamid had Cytec slated for divestiture, reinforcing his opinion that Cytec's chemicals business occupied the lowest rung of its parent company's priorities. By the following year—one year after Cytec's formation—the business press realized American Cyanamid's intentions for its recently formed company. Cytec was to be spun off as an independent company, but the process of separation could not be completed overnight. Cytec, by itself, represented a nearly \$1 billion a year business; its separation from American Cyanamid would require a substantial amount of time to complete. During this interim period spanning Cytec's formation and its spin-off from American Cyanamid, Fry devoted his energies to shaping the company into an enterprise that could stand on its own.

Early on, Fry began to make fundamental changes in the way Cytec operated. His goal was to implement as many of the changes as possible before Cytec's spin-off, or, in his words, to take "all the psychological and morale hits before the spin." Toward this end, there was much to be done. Cytec physically separated itself from American Cyanamid before the spin-off, moving its headquarters to West Paterson, New Jersey, away from its parent company's campus in Wayne, New Jersey. Before and after the move, Cytec had to be restructured, layers of management needed to be stripped, and costs had to be cut drastically. Further, and perhaps most difficult, a new mentality among all employees had to be instilled, one that replaced the ingrained habits and practices existing under the American Cyanamid regime. Fry intentionally established what he described as a period of "discontinuity," a period of purposeful, noticeable disruption that let everyone know nothing would be as it once had been. Austerity measures were implemented to create what Fry envisioned as a "classless" corporate culture, a company without executive dining rooms, without corporate jets, and without executive parking lots. Part of the reason for the sweeping changes was the burdensome inheritance Cytec was slated to receive as part of the spin-off. Upon gaining its independence, the company was to assume roughly \$400 million in employee retirement, health, and insurance

liabilities, as well as approximately \$225 million in environmental clean-up liabilities. "Things couldn't get any worse," Fry remarked, recalling the ominous future the company faced during the early 1990s. Cytec, an industry analyst noted, echoing Fry's assessment, "has to dig its way out of a deep ditch."

1993 Spin-Off

The various businesses Fry was struggling to shape into an efficient, cohesive whole comprised American Cyanamid's global chemicals business, which in 1992 generated \$951 million in revenue. The scope of the business included American Cyanamid's process chemicals, commodities chemicals, coating resins, water treating and mining chemicals, and paper chemicals assets. In December 1992 Cytec received another business from American Cyanamid, the company's acrylic fibers segment, which manufactured fibers for apparel and industrial uses. With the addition of the acrylic fibers segment, which was organized as the Fibers division, the major components of Cytec's business were in place and the company was ready for the much-awaited spin-off date. The spin-off occurred on December 17, 1993, but its arrival did not evoke any sense of a new beginning. According to Fry, Cytec's employees felt "kicked out by Cyanamid." Investors, who were presented with the opportunity to invest in Cytec for the first time, were generally apathetic. Fry conceded "expectations were very low," but he remained positive, declaring "we've exceeded expectations since day one." Despite Fry's optimism, there was not much hope that Cytec could be fashioned into a vibrant, financial success. There were, however, several factors working in the company's favor. Cut free from American Cyanamid, Cytec no longer had to clamor for resources from a parent company with priorities that did not always mesh with its own needs. Second, Cytec's operations were unique, giving the company an advantage that not all of its competitors enjoyed. The company manufactured a handful of its own raw materials, including ammonia, methanol, acrylonitrile, acrylamide, and melamine, positioning the company as a "back integrated" specialty chemicals producer, a rarity among the industry's participants. The addition of the acrylic fibers business made Cytec one of only two acrylic fibers producers in the United States, which gave the company a solid position in a market expected to grow during the mid-1990s.

As Cytec headed out on its own, its businesses were divided into three categories: building block chemicals, specialty materials, and specialty chemicals. The building block chemicals segment comprised the manufacturing operations that distinguished Cytec as a vertically integrated chemicals producer. The specialty materials group was led by the company's acrylic fibers business, but also included the production of aerospace film adhesives and advanced composites, as well as specialized sealants, molding compounds, and metal-coated fibers. Cytec's third business segment--its specialty chemicals operations--consisted of water treating, mining, and paper chemicals, as well as coating resins and polymer additives. In the years following the spin-off, much of the company's growth occurred in the specialty materials segment.

As expected, Cytec's first few months as an independent company proved difficult. The company recorded an operating loss of \$89 million in 1993, yet Fry remained positive, realizing that the early 1990s were years of preparation. "In the next three years," Fry declared, projecting Cytec's course between 1994 and 1997, "we're going after top-line growth and developing a passion for the customer." The budget for capital expenditures was increased to \$120 million for 1994, as the company realized its first opportunity to develop momentum, while Fry turned his attention to strengthening customer relations. "If you track my time," Fry remarked, recalling American Cyanamid's tenure of control, "the proportion that I have spent with customers has been deplorable. I plan to pick that up heavily." Fry planned to diversify the geographic composition of the company's customer base as well, hoping to increase Cytec's business outside the United States and Canada. During the mid-1990s Cytec derived 75 percent of its sales from the United States and Canada, but Fry envisioned an even split between business outside North America and business within North America. Accordingly, the company began exploring business opportunities in Western Europe, Latin America, and the Far East, with a particular emphasis on China and Southeast Asia as high-growth regions.

To the outside observer, Cytec's most noticeable activity took place on the acquisition and divestiture fronts, away from the behind-the-scenes efforts to improve customer relations and expand geographically. First, the company began to shed businesses and properties, discarding assets that no longer matched its priorities. The first hint of the divestitures to follow arrived in early May 1996, when the company announced its decision "to explore all strategic options available to enhance the value of its acrylic fibers business including the possible sale of the business." Although the Cytec was one of only two acrylic fibers manufacturers in North America, the business no longer fit the company's strategic plans. Cytec's vice-president of corporate development explained: "We feel that fibers are not our key strength. Chemicals are our key strength as a company. Fibers require a different priority." A week later, Cytec announced similar plans for its aluminum sulfate business, a producer of chemicals used by paper mills to improve paper quality and used by municipalities to purify drinking and waste water. The aluminum sulfate business was the first to go, sold to GEO Specialty Chemicals, Inc. in mid-December 1996. The divestiture stripped Cytec of seven manufacturing plants in the southeastern United States and an additional plant in Georgia. One week later Cytec reached an agreement with Sterling Chemicals, Inc. for the sale of the company's acrylic fibers business, a \$140-million-revenue producer in 1996. The transaction, which included a plant in Pensacola, Florida, was completed at the end of January 1997 for approximately \$100 million. Fry explained, "The divestiture is consistent with Cytec's strategy to concentrate on value-added, technology-intensive specialty chemicals."

Late 1990s Acquisitions

At the same time of the sale of the acrylic fibers business, Cytec underwent a change in management. As had been announced in the early 1990s, Fry intended to retire in January 1999 at age 60, but the leadership transition began at the beginning of 1997, when David Lilley took over as president and assumed control of operations. Fry stayed on as chief executive officer and chairman, but it was Lilley who oversaw Cytec's first major acquisition, the purchase of Fiberite, Inc. In September 1997 Cytec purchased Fiberite from Stamford FHI Acquisition Corp. for an estimated \$344 million, completing a move aimed toward strengthening its aerospace business. Fiberite, which was expected to generate \$250 million in revenues in 1997, manufactured epoxy and resin systems for the interiors and exteriors of commercial and military aircraft at factories in Texas, California, Minnesota, Pennsylvania, and Delaware. Internationally, the company operated facilities in France and in Germany. Fiberite's operations were merged subsequently with a Cytec subsidiary named Cytec Engineered Materials Inc., which was renamed Cytec Fiberite Inc.

With the acquisition of Fiberite, Cytec's specialty materials segment accounted for approximately 40 percent of total operating profits for 1997. Of this total, 80 percent was derived from sales to the commercial and military aerospace industry, which was becoming the central focus of the company's

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plans as the late 1990s progressed. In this business area, Cytec stood well positioned, despite the reverberating effects of the Asian economic crises. The collapse of Asian economies was important to Cytec because the financial catastrophe touched off a rash of aerospace order cancellations, impacting the customers who were becoming increasingly important to Cytec's financial well being. At first blush, Cytec appeared dangerously exposed to the market downturn, but the company's focus on advanced composites provided substantial protection from the crises. The majority of the aerospace cancellations were for Boeing 747s, which used less than 2.5 percent of their structural weight in advanced composites. Boeing 777s, by comparison, used a greater percentage of the type of advanced composites made by Cytec, roughly eight percent more than the Boeing 747s. To Cytec's fortune, Asian cancellations of Boeing 777s were replaced by orders from non-Asian airlines.

Evidence of the confidence in the future of aerospace business was found in Cytec's next big move on the acquisition front. In October 1998 the company acquired The American Materials & Technologies Corporation (AMT) for roughly \$30 million. Lilley, who had been named chief executive officer in May 1998, announced, "AMT provides us the opportunity to enhance our existing aerospace product portfolio as well as realize significant cost synergies." Wall Street, which initially had been indifferent to Cytec's existence, applauded the company's increasing penetration of the aerospace market. Said one specialty chemicals analyst, "I would be hard pressed to find any negatives for Cytec right now." Fry, in his last weeks as chairman of the company following the AMT acquisition, could rightly claim to have completed a remarkable turnaround, but further adjustments to Cytec's structure and operations were in the offing as the late 1990s drew to a close. The specialty chemicals market was rapidly consolidating, and Cytec was expected to take advantage of the acquisition candidates created by the consolidation. In a potential prelude to a future acquisition, Cytec sold its bulk molding compounds business in November 1998, which included a manufacturing, sales, and laboratory facility in Ohio. Looking ahead, the company was expected to increase its international business, as the era of Lilley's management succeeded Cytec's formative years under the guidance of Fry.

Principal Subsidiaries: Cytec Fiberite Inc.

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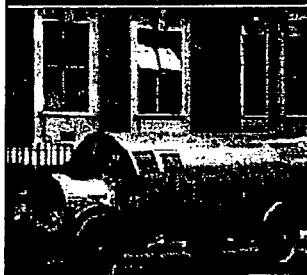
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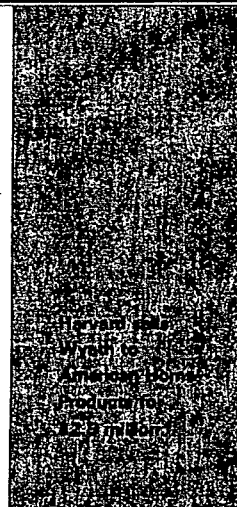
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1994



American Cyanamid and its subsidiary Lederle Laboratories are acquired, accelerating the Company's evolution into a top-tier pharmaceutical firm. Public health pioneer Ernst Lederle was Health Commissioner of New York City before founding Lederle Antitoxin Laboratories in 1906.



Cyanamid's key OTC brands include Centrum[®], the leading U.S. multivitamin franchise.

The Cyanamid acquisition brings Lederle's Procter & Gamble voodooes, building powerful new R&D capacity in this area.

Combined sales top \$1.5 billion. The Company acquires the remaining interest in Genentech Institute.

1994 1994 1995

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2000

2001

Robert Essner becomes President and focuses on strengthening the Company's core mission as a world leader in prescription pharmaceuticals, non-prescription medicines, and animal health products.

Protonix (pantoprazole sodium) — Wyeth's proton pump inhibitor for the treatment of gastroesophageal reflux disease (GERD) — is launched.

Cytosend Agricultural Products is spun-off, marking the final step in the Company's transformation into a research-driven, global pharmaceutical company.

Atac (ramipril), sponsored by King Pharmaceuticals Inc. and co-marketed by Wyeth, is the first and only angiotensin-converting-enzyme (ACE) inhibitor to receive FDA approval for reduction of the risk of stroke, myocardial infarction, and death from cardiovascular diseases in patients 55 or older at high risk of developing a major cardiovascular event.

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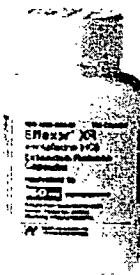
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2001


Effexor XR[®] (venlafaxine HCl) receives FDA approval for use in preventing relapse and recurrence of depression.



2002

On March 11, American Home Products changes its name to Wyeth, reflecting the Company's evolution from a diversified holding company into a focused, global pharmaceutical company. The change also pays tribute to the organization's deepest historical roots in pharmaceuticals (John Wyeth & Brother) and non-prescription medicines (Wyeth Chemical).





Alavert[®] — a non-sedating antihistamine — receives FDA approval.

2002

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The Merger with American Cyanamid



Dr. Ernst Lederle, a public health pioneer and former Health Commissioner of New York City, founded Lederle Antitoxin Laboratories in 1908.

Early in 1994, Wyeth (then known as American Home Products Corporation) was focusing aggressively on building its core strengths in pharmaceuticals, vaccines and over-the-counter medicines. The Company's leaders were searching for a partner to help accelerate that process. They found that partner in Wayne, New Jersey, the headquarters of American Cyanamid. The two companies had much in common, including talented people, OTC products, pharmaceuticals and vaccines. American Cyanamid traced its roots to 1907, when a civil engineer named Frank Washburn was seeking new uses for hydroelectric power and discovered instead a process for making the world's first synthetic fertilizer.

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The Merger with American Cyanamid



Dr. Ernst Lederle, a public health pioneer and former Health Commissioner of New York City, founded Lederle Antitoxin Laboratories in 1906.

By late 1994 the merger was complete, adding key consumer brands such as Centrum[®], a global agricultural products business, prescription pharmaceuticals and a significant stake in the Seattle-based biotechnology firm Immunex. It also substantially strengthened Wyeth's vaccine business through the addition of Lederle Praxis vaccines, acquired by American Cyanamid in 1930. Public health pioneer Dr. Ernst Lederle served as Health Commissioner of New York City before founding Lederle Antitoxin Laboratories in 1906 to produce diphtheria antitoxin. This seminal acquisition brought to American Cyanamid a portfolio of antisera and vitamin products and positioned the firm as a leader in vaccine research and

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The Merger with American Cyanamid



Dr. Ernst Lederle, a public health pioneer and former Health Commissioner of New York City, founded Lederle Antitoxin Laboratories in 1908.

production.

Wyeth's ability to discover, develop, manufacture and market innovative life-improving products was greatly strengthened by its merger with American Cyanamid. The acquisition accelerated Wyeth's transformation into one of the world's top companies in sales of prescription drugs, the leader in vitamin sales in the United States, one of the top two OTC manufacturers, a major player in generics and a leader in global animal health products. With unprecedented R & D capacity and top talent, a series of key breakthroughs across several therapeutic fronts quickly followed.

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American Home offers \$8.5 bill. for American Cyanamid

American Home Products Co. has made a surprise \$8.5 billion, or \$95 per share, offer for American Cyanamid Co. The \$95 per share price represents nearly a 50% premium over the company's stock Price previous to the hostile bid.

American Home made the unsolicited bid in an attempt to block a multi-billion dollar asset swap now being discussed by American Cyanimid and SmithKline Beecham PLC.

In a statement, American Cyanamid said it was reviewing a number of strategic alternatives and that "it will in due course review the American Home proposal." SmithKline Beecham said it had no immediate comment.

The consensus on Wall Street has it that American Home's \$95 per share offer is a very aggressive one that shouldn't receive any higher counter-offers. However, American Cyanamid has resisted a takeover for 15 years and is unlikely to give in without a fight. An adviser to American Home said the company isn't worried. "They may fight, but they are gone," he said.

If American Home completes its offer, the combination would create a giant with \$12.5 billion in sales. The combination would also strengthen American Home's research pipeline and product lines, two areas in which analysts have noted that American Home is poor compared to the industry.

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Green light from the EU Commission

American Cyanamid acquisition by BASF closed within three months

- New position in the top three global players
- R&D pipeline with 15 actives
- Savings: U.S. \$250 million per year

July 1, 2000, will be the closing for BASF AG of Ludwigshafen, Germany, taking over the Cyanamid agricultural products business of American Home Products Corporation (AHP), a company head-quartered in Madison, New Jersey. This purchase, the largest acquisition in the corporation's history, doubles BASF's crop protection products business and moves it up into the ranks of the world's top three leading manufacturers of crop protection products. BASF's crop protection sales amounted to US \$1.9 billion in 1999. This closure follows approval of the EU Commission. Earlier in June, the waiting period under the Hart-Scott-Rodino pre-merger notification statute expired without any action by the US antitrust agencies.

"With this step, we have consistently expanded our traditional strengths in crop protection, both regionally and from a portfolio viewpoint," says Eggert Voscherau, member of the Board of Executive Directors and responsible for the Health & Nutrition segment, which includes BASF's Crop Protection business.

Since signing the agreement at the end of March, BASF has moved ahead quickly in planning of the integration, to be ready for the important fall launches in the Northern Hemisphere. "I am very proud that we have managed to implement our ambitious plan within such a short time span, and this fills me with confidence as we tackle the upcoming integration process," states Friedrich Vogel, president of the Crop Protection Division.

In the past few weeks, BASF has defined more than 100 key positions within the new crop-protection business. This puts into place a solid foundation for the further expansion of the global business. Once the purchase has been completed in most countries of the world, BASF will be in a position to work out the details of the strengthened crop protection business. In some countries, the merger will take place in a matter of weeks, in accordance with the local regulatory requirements.

"Our teams will continue to work as thoroughly and quickly as they have been doing so far," says Friedrich Vogel, "so that the new, expanded and very powerful organization will already be up and running in October. Our new team will then, with the same commitment, be able to offer our customers an even more attractive product portfolio."

The future global headquarters of the Crop Protection Division will be Mount Olive, New Jersey. Friedrich Vogel goes on to say, "That way, we will be in a better position to place more emphasis on the strategically important agricultural regions of North and South America."

By integrating the global Cyanamid agricultural products business, BASF is building a crop protection business that will be successful, based on the following decisive factors:

- BASF is taking a leading position in important agricultural markets. Its global presence will

be considerably expanded, especially in the significant agricultural markets of North and South America. The well-established position in Europe will be further strengthened.

- BASF offers a broad and innovative product portfolio for all major crops and will now also have access to a proven line of insecticides.
- BASF also will have a leading position in herbicides for forest management, native plant species restoration and rights-of-way, in addition to insecticides for urban pest control and public health programs. The company also adds to its portfolio of turf and ornamental products in the US, Japan and other countries.
- BASF will develop the combined research pipeline of 15 active ingredients, to be introduced between now and 2006 with a peak sales potential of US \$2 billion.

On the basis of the figures for 1999, this joint undertaking would have achieved combined pro-forma sales amounting to US \$3.6 billion and income from operations of about US \$450 million before nonrecurring items. The acquisition is projected to yield synergies of about US \$250 million per year, half of which will be achieved as early as 2001. The augmented product portfolio is expected to provide for additional growth opportunities in several markets.

BASF is a return-focused global company which strives for value-added growth, especially in the sectors of chemistry, health and nutrition as well as oil and gas. The company's product line encompasses high-value-added chemicals, plastics, colorants, dispersions, automotive and industrial coatings, crop protection agents, pharmaceuticals, fine chemicals, oil and gas. The sophisticated integrated-network strategy - the Verbund - is one of BASF's special strengths and it gives the company a decisive competitive edge. With sales of US \$29.5 billion in 1999 and 105,000 employees, BASF is one of the world's leading chemical companies. BASF can also be found on the Internet at www.basf.de.

This press release contains certain forward-looking statements and information relating to BASF Group based on current expectations, estimates and projections of its management and information currently available to the company. These statements reflect the current views of BASF with respect to future events, are not guarantees of future performance and involve certain risks and uncertainties that are difficult to predict. In addition, certain forward-looking statements are based upon assumptions as to future events that may not prove to be accurate. We do not assume any obligation to update the forward-looking statements contained in this news release.

News

CYTEC ANNOUNCES SECOND QUARTER RESULTS
Full Year 2006 Outlook Updated

July 20, 2006

West Paterson, New Jersey, Cytec Industries Inc. (NYSE:CYT) announced today net earnings for the second quarter of 2006 of \$48.4 million or \$1.00 per diluted share on net sales of \$853 million. Included in the quarter is a pre-tax net restructuring charge of \$21.9 million (after-tax \$15.4 million or \$0.32 per diluted share), a pre-tax charge of \$1.0 million (after-tax \$0.8 million or \$0.01 per diluted share) for integration expenses related to the Surface Specialties acquisition, a pre-tax gain relating to the receipt of \$15.6 million (after-tax \$12.4 million or \$0.26 per diluted share) in a legal dispute and an income tax benefit of \$3.5 million (\$0.07 per diluted share) related to the completion of prior years tax audits. Excluding these items, net earnings were \$48.7 million or \$1.00 per diluted share.

Net earnings for the second quarter of 2005 was \$11.9 million or \$0.25 per diluted share on net sales of \$813 million. Included in the quarter was a purchase accounting related charge of \$10.3 million pre-tax (after-tax \$7.5 million, or \$0.16 per diluted share) related to the 2005 acquisition of the Surface Specialties business, a pre-tax charge of \$28.0 million (after-tax \$17.7 million or \$0.37 per diluted share) for interest rate derivative transactions associated with the Surface Specialties acquisition, a pre-tax charge of \$2.4 million (after-tax \$1.8 million or \$0.04 per diluted share) for an anticipated settlement of a certain litigation matter, a pre-tax charge of \$22.0 million (after-tax \$14.0 million or \$0.30 per diluted share) pertaining to the optional redemption of our Mandatory Par Put Remarketed Securities (MOPPRS) prior to their maturity and an income tax benefit of \$9.6 million, or \$0.20 per diluted share, reflecting the partial resolution of a tax audit in Norway with respect to prior year tax returns. Excluding these special items, net earnings were \$43.3 million or \$0.92 per diluted share.

David Lilley, Chairman, President and Chief Executive Officer said, "Our second quarter results continued the positive momentum from the first quarter. The benefits of our previous initiatives are now being realized in our financial results and in spite of the headwinds of higher raw material costs, primarily related to propylene and its derivatives, our operating margin improved to almost 10%.

Cytec Performance Chemicals Sales increased 1% to \$230 million; Operating Earnings increased to \$18.3 million

Mr. Lilley continued, "In Cytec Performance Chemicals, selling volumes decreased 1%, selling prices increased 2% and exchange rate changes were flat. Strong sales volume in mining chemicals and pressure sensitive adhesives were more than offset by lower volumes in specialty additives and in water treatment chemicals, primarily into the paper sector.

"Operating earnings increased to \$18.3 million primarily due to the benefits of restructuring and a better product mix partially offset by higher raw material costs and expense of \$0.9 million for stock options and stock appreciation rights settled in stock related to the application of "Financial Accounting Standard No. 123R, "Share Based Payment" (SFAS 123R). Included in 2005, and related to the Surface Specialties acquisition, is a charge of \$1.3 million for the excess of the fair value of the finished goods inventory of the acquired business over normal manufacturing cost.

Cytec Surface Specialties Sales increased 5% to \$391 million; Operating Earnings increased to \$29.5 million

"In Cytec Surface Specialties, selling volumes increased 7%, selling prices decreased 2% and exchange rate changes were flat. The increase in selling volumes was strong in all regions except North America.

Selling prices were down in radcure and powder coating resins.

“Operating earnings increased to \$29.5 million primarily due to increased selling volumes, improved product mix, favorable raw material costs principally in the radcure product line and the benefits of restructuring partially offset by lower selling prices and expense of \$0.8 million for stock options and stock appreciation rights settled in stock related to the application of SFAS 123R. Included in 2005 and related to the Surface Specialties acquisition, is a charge of \$9.0 million for the excess of the fair value of the finished goods inventory of the acquired business over normal manufacturing cost.

Cytec Engineered Materials Sales increased 8% to \$152 million; Operating Earnings increased to \$28.3 million

“Cytec Engineered Materials selling volumes increased 5%, selling prices increased 3% and exchange rate changes were essentially flat. The selling volume increase was primarily due to higher build rates for large commercial aircraft partially offset by the expected ramp down in volume to a European high-end automotive program.

“Operating earnings improved 12% to \$28.3 million, primarily due to higher selling volumes and selling prices. Included in operating earnings is expense of \$0.6 million for stock options and stock appreciation rights settled in stock related to the application of SFAS 123R.

Building Block Chemicals Sales increased 10% to \$81 million; Operating Earnings decreased to \$6.2 million

“Building Block Chemicals selling volumes increased 1%, selling prices increased 9% and exchange rate changes were flat. Due to tighter supply/demand conditions for acrylonitrile, selling prices increased.

“Operating earnings decreased to \$6.2 million. Selling price increases almost offset the increase in raw material costs. Our plant operations ran well, however, similar to last quarter, our melamine manufacturing joint venture partner did not take any production during the quarter. The resulting operational inefficiencies associated with the melamine plant being down for about half the quarter reduced earnings by slightly over \$1 million. Also included is expense of \$0.3 million for stock options and stock appreciation rights settled in stock related to the application of SFAS 123R.”

Earnings in Associated Companies

Earnings in Associated Companies decreased from the prior year period as a result of the May 2005 sale of our 50% interest in CYRO Industries to our former partner, Degussa.

Corporate and Unallocated

James P. Cronin, Executive Vice President and Chief Financial Officer commented, “During the quarter, we recorded a net restructuring charge of \$21.9 million, which was primarily recorded in cost of sales. Of the net restructuring charge, \$22.6 million relates to permanently shutting down manufacturing operations for two older technology polymer additive light stabilizer products produced at our manufacturing facility in Botlek, the Netherlands which included a full review of the support and commercial infrastructure at the site. Included in the \$22.6 million charge is a non-cash \$13.8 million write-off of polymer additive assets at our Botlek site with the majority of the remaining amount being mostly severance related. One of the products, CYASORB® UV-5411 light stabilizer, will be consolidated at our Willow Island, West Virginia facility. Production of the other product, CYASORB® UV-1084 light stabilizer, is expected to cease by the end of the third quarter and we will exit this product line. The remainder of the net restructuring charge is a reduction of \$0.7 million of a previous restructuring accrual primarily as a result of incurring less cost than originally estimated.

"Included in administrative expense are integration costs of \$1.0 million related to the Surface Specialties acquisition. These integration costs which began in the second quarter, the majority of which are duplicative in nature, are being incurred primarily as a result of the elimination of transition service agreements that were in place with the former owner regarding the information technology hardware infrastructure.

"In addition, we realized a gain of \$15.6 million during the quarter which is included in other income (expense), net relating to a legal dispute with a European firm that was in arbitration proceedings since 2000. After proceeding through a number of appeals the defendant was ordered to pay us damages and we collected essentially all of the cash in the second quarter. Although a final appeal is pending, we believe the appeal is without merit.

"Included in administrative expense in the second quarter of 2005 was a pre-tax charge for \$2.4 million (\$1.8 million after-tax) related to an increase in accrual for a certain litigation matter.

"Included in other income (expense), net in the second quarter of 2005 was a pre-tax loss of \$28.0 million (\$17.7 million after-tax or \$0.38 per diluted share) pertaining to interest rate derivative transactions related to the acquisition of the Surface Specialties business."

Interest Expense

Mr. Cronin commented, "Interest expense was reduced from the prior year quarter due to the overall lower debt level as we continue to make good progress in reducing debt incurred for the Surface Specialties acquisition in the first quarter of 2005.

"In the second quarter of 2005, we redeemed our \$120 million MOPPRS debt at the optional redemption price of approximately \$141 million which included \$21 million for the value of redeeming the securities prior to their final maturity. In addition, we recognized a charge of \$1 million from amounts related to the unamortized put premium and rate lock agreements for these securities. Accordingly, 2005 interest expense includes a total pre-tax charge of \$22.0 million related to this transaction."

Income Tax Expense

Mr. Cronin added, "Our tax provision for the second quarter of 2006 was \$10.9 million, or 18.4%, on the earnings before income taxes. Favorably impacting the rate for the quarter is a reduction in income tax expense of \$3.5 million related to the completion of prior years U.S. tax audits. Also favorably impacting the tax rate was the tax benefit from the restructuring charge which was recorded at 29.6% and the gain on the favorable resolution of the previously mentioned legal dispute which was effectively recorded at a tax provision of 20%. Excluding these items, our underlying effective tax rate for the quarter was 27%.

"For the second quarter of 2005 our effective tax rate for continuing operations was favorably impacted by a reduction in income tax expense of \$9.6 million related to a partial resolution of a tax audit in Norway with respect to prior years tax returns. Also favorably impacting the rate were the losses incurred in the U.S. on the interest rate derivatives and the MOPPRS redemption. The tax benefit on these losses is recorded at 36.5%. Excluding these items, our underlying effective tax rate for the quarter was 27%."

Cash Flow

Mr. Cronin commented further, "Cash flow provided by operations was \$74 million for the quarter. Trade accounts receivable dollars were up \$37 million, in line with the increase in sales. Inventory dollars increased \$18 million and days outstanding are 71, up about 3 days from year end. Capital spending for the quarter was \$25 million and our full year estimate of \$110 million is unchanged. We

continue to pay down debt in advance of scheduled payment dates and during the quarter we paid down \$59 million of our debt.”

Sale of Water Treatment Chemicals and Acrylamide Product Lines

Mr. Lilley commented further, “On July 17, 2006 we announced that we had reached a definitive agreement to sell our water treatment chemicals and acrylamide product lines with estimated 2006 sales of approximately \$300 million, to Kemira Group, for approximately \$240 million cash. The closing of the sale is expected in two phases. The first phase, which includes the entire product lines excluding Cytec’s manufacturing site in the Netherlands, is expected to close by the end of September, 2006. The second phase for the Netherlands site is expected to close in early 2007. Between the closing of phase one and phase two, Cytec will contract manufacture and sell water treatment chemicals and acrylamide at the Botlek site solely to Kemira. The timing of the flow of funds is \$220 million upon the first closing with the balance payable upon the second closing. Both closings are subject to regulatory approval and certain other conditions.

“When completed, this transaction will streamline Cytec, further improve our balance sheet and let us increase our focus on our growth businesses. The net effect of this transaction, excluding any anticipated gains on the actual closings, and giving effect to the use of net after-tax proceeds to pay down debt is expected to be about \$0.04 dilutive to earnings per diluted share in 2006 assuming the first closing occurs on September 30, 2006.”

2006 Outlook

Mr. Lilley commented further, “Our second quarter results have continued our momentum from the first quarter. We expect our aerospace markets to continue to grow in the second half of 2006 as the build rates for large commercial aircraft, business jets, military aircraft and commercial rotorcraft continue to increase and our customers utilize more advanced composites. For our Specialty Chemical segments we now expect a slight decline in demand in North America. For Europe, demand has improved but typically the second half is lower than the first half. We continue to expect Asia-Pacific and Latin America to have good growth in 2006. Our expectation is for crude oil costs to stay high for the rest of 2006 which for us affects the cost of propylene and its derivatives which then impacts Cytec’s Specialty Chemicals and Building Block Chemicals businesses.”

Mr. Lilley continued with some additional comments, “The following discussion includes the impact of the proposed sale of the water treatment chemicals and acrylamide product lines assuming a September 30, 2006 phase one closing.

“In Cytec Performance Chemicals, our full year guidance for a sales range of \$900 to \$925 million revises to a range of \$840 to \$865 million and for an operating earnings range of \$65 to \$70 million revises to a range of \$63 to \$68 million after adjusting for the sale of the water treatment chemicals product line. We continue to expect strong demand in our mining chemicals and more moderate demand in most others. The polymer additive product line continues to see severe price competition in our mature products but our commercial organization continues its focus of increasing sales of our proprietary differentiated products. We announced a restructuring of our polymer additives manufacturing at our site in the Netherlands and the impact from these actions will have a positive impact in 2007.

“In Cytec Surface Specialties, our full year guidance for a sales range of \$1.48 to \$1.52 billion is unchanged. Our operating earnings range of \$95 to \$105 million improves to a range of \$97 to \$107 million. The improvement in demand from Europe is mostly offset by weakness in North America. We expect to continue to see good progress in the Asia-Pacific and Latin American regions and also from new global product introductions. Our forecast is for raw material costs to increase in the second half of

the year and we will attempt to compensate with selling price increases. We continue to find many opportunities to improve our operations both in the short and medium term.

“In Cytec Engineered Materials, we continue to respond to aircraft manufacturers as they develop new platforms for the future plus new applications for advanced composites and anticipate increased aircraft production. We have a strong order book for the second half of the year although we now expect some delays into 2007. Taking into account the above, we are changing our full year guidance for sales to \$590 to \$610 million from our previous guidance of \$600 to \$620 million and for operating earnings to \$110 to \$115 million from our previous guidance of \$115 to \$120 million.

“As expected, Building Block Chemicals saw some improvement in the second quarter. We continue to watch the impact of oil price volatility on propylene costs and acrylonitrile margin spreads. Our operating team is focused on what they can control, particularly manufacturing efficiency and costs. Taking into account the above and anticipating the sale of the acrylamide product line and the resulting sales from the acrylonitrile supply contract, our full year guidance for sales is in a range of \$310 to \$330 million and operating earnings now looks to be about \$15 million versus a previous range of \$12 to \$15 million.

“We forecast no change in our guidance for Corporate and Unallocated and other income/(expense). Our forecast for interest expense, net will be reduced to a range of \$51 to \$53 million from a range of \$54 to \$56 million as we pay down debt with proceeds from the divestiture. We see some improvement in our forecast for equity earnings to about \$3 million and our forecast for our underlying annual effective tax rate for ongoing operations will change slightly to 27.3% from 27% as some of the earnings of the divested product lines were recorded in a lower tax rate entity.

“Overall, we had a solid first half in 2006 but we remain cautious on the demand side and are concerned about high oil costs and raw material volatility. Taking this into account plus all the above, including the impact of the pending sale of the water treatment chemicals and acrylamide product lines, our revised forecast for full year diluted earnings per share is a range of \$3.41 to \$3.66 versus our prior range of \$3.45 to \$3.70 per diluted share.

Excluded from the full year guidance are the following special items – (a) approximately \$3 million pre-tax for integration expenses related to the Surface Specialties acquisition, (b) the \$15.6 million pre-tax gain related to a legal dispute, (c) net restructuring charges of \$22.3 million pre-tax recorded in the first and second quarters of 2006, (d) the reduction in income tax expense of \$3.5 million relating to the completion of prior years tax audits and (e) the cumulative effect of accounting change after-tax charge of \$1.2 million related to the adoption of SFAS 123R. Also excluded are any additional restructurings or divestiture gain as a result of the pending sale of the water treatment chemicals and acrylamide product lines.”

In closing Mr. Lilley commented, “We have recently announced a number of key strategic and operational initiatives to improve Cytec, and we continue to focus on all issues under our control. The Cytec team is committed to delivering the highest performance for all our stakeholders.”

Six Month Results

Net earnings for the six months ended June 30, 2006 were \$86.4 million or \$1.79 per diluted share on sales of \$1,673 million. Included in the results for the six months ended June 30, 2006 were – (a) net restructuring charges of pre-tax \$22.3 million (after-tax \$15.7 million or \$0.33 per diluted share) recorded in the first and second quarters of 2006, (b) a pre-tax \$15.6 million (after-tax \$12.4 million or \$0.26 per diluted share) gain related to resolution of a legal dispute, (c) a pre-tax charge of \$1.0 million (after-tax \$0.8 million or \$0.01 per diluted share) for integration expenses related to the Surface

Specialties acquisition, (d) a reduction in income tax expense of \$3.5 million or \$0.07 per diluted share relating to the completion of prior years tax audits, and (e) the cumulative effect of an accounting change after-tax charge of \$1.2 million or \$0.02 per diluted share related to the adoption of SFAS 123R. Excluding these items, net earnings were \$88.2 million or \$1.82 per diluted share.

Net earnings for the six months ended June 30, 2005 were \$5.3 million or \$0.12 per diluted share on sales of \$1,377 million. Included in the results for the six months ended June 30, 2005 were purchase accounting related charges of \$20.8 million pre-tax (after-tax \$15.2 million, or \$0.33 per diluted share), related to acquired inventories from Surface Specialties being recorded at fair value which exceeded normal manufacturing cost, a charge of \$37.0 million or \$0.82 per diluted share related to the write-off of in-process research and development costs of Surface Specialties, a pre-tax charge of \$47.9 million (after-tax \$30.4 million or \$0.67 per diluted share) related to currency and interest rate derivative transactions associated with the Surface Specialties acquisition, a pre-tax charge of \$2.4 million (after-tax \$1.8 million or \$0.04 per diluted share) related to an anticipated settlement of a certain litigation matter, a pre-tax charge of \$22.0 million (after-tax \$14.0 million or \$0.31 per diluted share) related to the optional redemption of our MOPPRS prior to their maturity, an income tax benefit of \$25.7 million, or \$0.57 per diluted share, reflecting favorable partial resolution of tax audits with respect to prior year tax returns, employee redundancy costs of \$1.3 million (after-tax net \$0.9 million or \$0.02 per diluted share), and a \$4.4 million settlement to resolve a dispute over an environmental matter (after-tax net \$3.2 million or \$0.07 per diluted share). Excluding these special items, net earnings were \$82.1 million or \$1.81 on a diluted share basis.

Investor Conference Call to be Held on July 21, 2006 11:00 A.M. ET

Cytec will host their second quarter earnings release conference call on July 21, 2006 at 11:00 a.m. ET. The conference call will also be simultaneously webcast for all investors from Cytec's website www.cytec.com. Select the Investor Relations page to access the live conference call.

A recording of the conference call may be accessed by telephone from 2:00 p.m. ET on July 21, 2006 until August 11, 2006 at 11:00 p.m. ET by calling 888-203-1112 (U.S.) or 719-457-0820 (International) and entering access code 5345506. The conference call recording will also be accessible on Cytec's website for 3 weeks after the conference call.

Use of Non-GAAP Measures

Management believes that net earnings, basic and diluted earnings per share before special items, which are non-GAAP measurements, are meaningful to investors because they provide a view of the Company with respect to ongoing operating results. Special items represent significant charges or credits that are important to an understanding of the Company's overall operating results in the period presented. Such non-GAAP measurements are not recognized in accordance with generally accepted accounting principles (GAAP) and should not be viewed as an alternative to GAAP measures of performance. A reconciliation of GAAP measurements to non-GAAP can be found at the end of this release.

Forward-Looking and Cautionary Statements

Except for the historical information and discussions contained herein, statements contained in this release may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Achieving the results described in these statements involves a number of risks, uncertainties and other factors that could cause actual results to differ materially, as discussed in Cytec's filings with the Securities and Exchange Commission.

Corporate Profile

Cytec Industries Inc. is a global specialty chemicals and materials company focused on developing, manufacturing and selling value-added products with pro forma sales in 2005 of approximately \$3.2

billion. Our products serve a diverse range of end markets including aerospace, adhesives, automotive and industrial coatings, chemical intermediates, inks, mining, plastics and water treatment. We use our technology and application development expertise to create chemical and material solutions that are formulated to perform specific and important functions in the finished products of our customers.

[\(Click here for Financial Tables\)](#)

CYTEC

2005
ANNUAL REPORT

Cytec Industries Inc.

Cytec Industries Inc.

Cytec Industries Inc. is a global specialty chemicals and materials company focused on developing, manufacturing and selling value-added products. Our products serve a diverse range of end markets including aerospace, adhesives, automotive and industrial coatings, chemical intermediates, inks, mining, plastics and water treatment. We use our technology and application development expertise to create chemical and material solutions that are formulated to perform specific and important functions for our customers.

OUR MISSION

Cytec's mission is to enhance shareholder value through double-digit percentage annual growth in earnings per share, while achieving a superior return on equity.

OUR VISION

Cytec's vision is to become a premier specialty chemicals and materials company through:

- Customer Focus
- Superior Technology
- Operational Excellence
- Employee Commitment

so that we can take pride in our achievements and our shareholders will enjoy the highest return on their investment.

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Back Cover: Corporate Information	

OUR VALUES

Safety

We make safety our first priority - the core of all we do.

Environment

We are committed to protecting the health and well-being of the communities in which we conduct business.

Employees

We respect every employee, recognizing our mutual need to be safe, healthy, and successful. We value each other for our diverse ideas, experiences, and backgrounds.

Empowerment

We encourage our people to be innovative, to take action to make independent decisions, and to be accountable for their actions.

Leadership

Each of us strives to lead and motivate by example and consistently live by these core values. We coach, train, and empower employees to reach their full potential.

Teamwork

We work as groups and individuals toward our common goal in a spirited and selfless manner.

Continuous Improvement

We relentlessly pursue doing the right things better.

Technology

We are committed to providing the resources to develop technology that will build and sustain our businesses.

Ethics

We are fair, honest, and consistent in our business and personal practices.

2005

Years ended December 31,
(Dollars in millions, except per share amounts)

	2005	2004	2003
OPERATING RESULTS			
Net sales	\$ 2,925.7	\$ 1,721.3	\$ 1,471.8
Earnings from operations ^(a)	237.5	175.7	144.1
Net earnings ^(b)	142.6	124.1	92.8 ^(c)

PER SHARE DATA

Diluted earnings per common share ^(d)	\$ 3.07	\$ 3.03	\$ 2.31
Stockholders' equity based on outstanding common shares	26.69	22.83	19.32

OTHER DATA

Capital additions for the year	\$ 105.3	\$ 89.3	\$ 93.8
Total assets	3,810.5	2,251.6	2,046.4
Total stockholders' equity	1,238.1	932.0	775.9

(a) Excluding net special items of \$77.0 in 2005 and \$8.0 in 2004

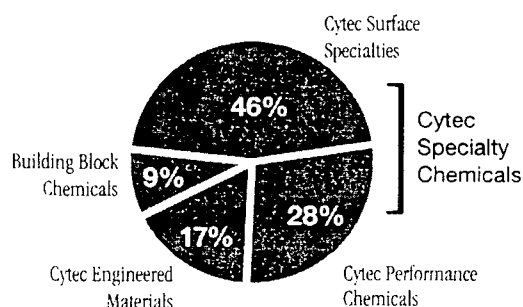
(b) Excluding net special items of \$(183.5) in 2005 and \$(3.0) in 2004

(c) Before the cumulative effect of a change in accounting principle for asset retirement obligations

(d) Excluding net special items of \$(1.80) per diluted share in 2005 and \$(0.07) in 2004

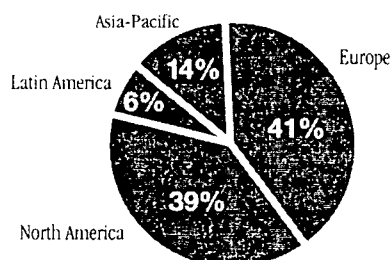
Technology-based Products

Percentage of pro forma net sales*



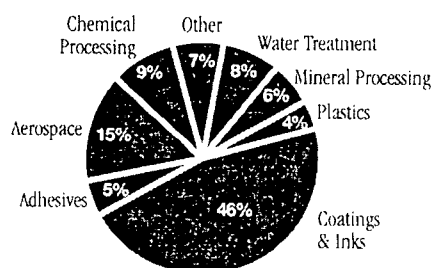
Distributed Globally

Percentage of pro forma net sales*



Serving Diversified Markets

Percentage of pro forma net sales*



*Pro forma net sales include Surface Specialties sales from the first two months of 2005. Surface Specialties was acquired 2/28/05.

955790268

TO OUR STOCKHOLDERS

2005 was a more challenging year for Cytec than we had expected. Raw material and energy costs continued to rise and adversely impact our profit margins. Then in early spring, industrial demand in Europe and in the United States weakened. This resulted in reduced sales primarily in the newly acquired Surface Specialties business and the Cytec heritage coating chemicals and polymer additives product lines. We were significantly impacted by the effects of the hurricanes, Katrina and Rita, at our Louisiana plant. Thankfully there were no injuries or environmental issues and our local staff made heroic efforts to secure, repair and bring the production units back on stream. However, the overall financial impact of the downtime and the repairs was significant at \$10 million. On a more positive note, our Engineered Materials sales continued to grow as demand from commercial aerospace increased, and importantly, the value of composite technology was recognized by our customers with new applications being developed.

The acquisition of the Surface Specialties business from UCB was completed on February 28th, and provides a platform to build a strong global technology coating chemicals franchise. The business has a broad portfolio of differentiated products particularly in the high growth eco-friendly systems. Although business conditions were challenging in 2005, we continue to believe that this transaction will enable us to accelerate earnings growth.

The Cytec people reacted promptly and positively to the challenges of 2005. We continued to benefit from new product introductions with one example being MAX HT scale inhibitor for the Alumina industry. The marketing and sales teams reacted quickly to the rising costs of raw material and energy costs by implementing selling price increases. Our manufacturing and supply chain operations improved customer service while reducing costs. We surpassed the synergy cost reduction goals for the Surface Specialties acquisition and ensured that the financial reporting of the acquired business met our own high standards and regulatory requirements. In short, everyone made a contribution to improving Cytec's performance in an extremely difficult business environment.

Sales in 2005 were \$2.93 billion, a 70% increase over 2004 mainly due to the Surface Specialties acquisition. In spite of the challenges in 2005, we still managed a modest increase in diluted earnings per share over 2004 of 1% to \$3.07 after excluding special items. A number of special items occurred in both years that are important to the comparison between 2004 and 2005 and these are described in the Management's Discussion and Analysis section of the following annual report on Form 10-K.

Our stock price opened the year at \$51.45, fluctuated due to the business conditions in the year, and closed 2005 at \$47.63.

The balance of this letter discusses the key issues in each business segment in 2005, and the actions we are taking to enhance shareholder value in 2006 and beyond.



Cytec Performance Chemicals

Sales were \$856 million with strong volume growth in Mining Chemicals but weakness in Polymer Additives. We were successful in raising selling prices, covering all of the escalating raw material and energy costs which in past years proved elusive. Manufacturing operated well and major investments were successfully completed for capacity expansions in Mining Chemicals and Phosphines. So despite the challenges, we held our operating profit margin at 8% after excluding special items.

Cytec Surface Specialties

The acquisition of the UCB Surface Specialties business closed on February 28th and the immediate focus was on regulatory compliance in terms of safety, environmental and financial reporting followed by the integration of the complementary business units. Organizational alignment was completed within 90 days and we began to focus on the customer and regain market share lost during the regulatory approval process. Unfortunately, at the same time the transaction was completed, the acquired and our own heritage businesses faced the dual challenge of escalating raw material costs and significantly reduced customer demand. We focused our efforts on increasing selling prices and achieving our cost reduction synergy targets for the acquisition, both of which were successful. However, the shortfall in demand on a pro forma basis was 1% versus 2004, well below our expectations and resulted in an operating profit margin after excluding special items of 6%.

In the latter half of 2005, given the poor business conditions, we combined the two specialty chemical units into Cytec Specialty Chemicals under the leadership of Shane Fleming to accelerate decision making, initiate business process improvements and align costs with demand. We also realigned certain product lines within our reporting segments to better reflect the customer base and improve asset management throughout Cytec Specialty Chemicals. The changes in segment reporting are reflected in our 2005 financial reporting.

Concerning the acquisition, we are pleased with the potential of the R&D programs, the manufacturing assets and the quality of the people who joined Cytec. Our strategic intent of the acquisition is intact, i.e. to build a strong global technology-based coating chemicals business with a broad portfolio of differentiated products led by the eco-friendly RADCURE resins, powder coating resins and waterborne coating resin systems. We understand the need to run a streamlined and cost-effective operation and our focus is to quickly improve operating profit margins.

Building Block Chemicals

Sales were \$284 million and this segment faced several significant challenges in the year. First was the significant raw material and energy cost increases which higher selling prices almost covered. Second, selling volumes were 7% lower than 2004 as high acrylonitrile selling prices inhibited demand in Asia. Finally, the hurricanes had a direct financial impact of \$10 million in addition to reducing demand in North America. The net result was an operating profit margin of only 2%.

Cytec Engineered Materials

Sales were up 11% over prior year at \$542 million with substantial growth coming from the large commercial aircraft sector but also growth in commercial rotorcraft and military aircraft. A major challenge for this segment in 2005 was tight external supplies of carbon fiber. We were successful in maintaining our external supplies and debottlenecking our carbon fiber plants and are considering other alternatives to increase carbon fiber capacity. Manufacturing operations steadily improved as our European advanced composite tapeline reached design conditions and we continue to invest in R&D and technical service personnel to meet the growing opportunities, particularly in new large commercial aircraft programs. The net result of our efforts was an increase in operating earnings by 24% which equates to an operating margin of 19% of sales.

Board of Directors

In April 2005, Mr. Ray Sharpe was elected to Cytec's Board of Directors. Mr. Sharpe is the President and Chief Executive Officer of Isola Group, a privately held manufacturer of base materials for printed circuit boards. His global operating experience, judgment and knowledge of business will be invaluable to Cytec's continuing growth.

2006 Challenges and Opportunities

This year Cytec faces similar business challenges to those in 2005, but we also have many opportunities to improve the performance of our business.

We continue to strive to bring value to our customers through superior technology, to bring all our operations to the highest level of productivity and support the people of Cytec who work to be the best at what they do.

The formation of the Cytec Specialty Chemicals organization retains the strategic and operational benefits of marketing, sales, technical service and R&D personnel dedicated to specific product lines while creating the opportunity for establishing best practices in manufacturing, supply chain, and other vital support services. The result should be a more responsive partner for our customers and a more cost-effective organization.

We believe there is opportunity for sales growth through geographical expansion and new products and we will continue investments in R&D to improve the vitality of our portfolio. We acquired a strong Asian business and infrastructure which we can now build

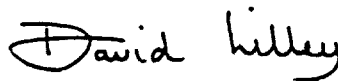
upon to support our customers in the fast-growing Chinese market as well as the more established Asian markets. We are accelerating the introduction of best practices in enterprise planning, manufacturing and logistics by building on the past successes of the chemicals business so that we can run the business in a more proactive and cost-effective manner. We believe this will enable us to steadily improve earnings and optimize working capital.

For Building Block Chemicals, the high costs of energy and key raw materials in the U.S. provides a unique challenge as we operate in a global economy; but the Building Block Chemicals team continues to focus on operational excellence initiatives to ensure our cost competitiveness.

In Cytec Engineered Materials, our challenge is to prioritize the large number of opportunities available to us. The two large commercial aircraft manufacturers are increasing deliveries to meet the global airline passenger growth, and are significantly expanding the use of advanced composites to reduce weight and improve aircraft fuel efficiency. Military applications continue to grow and the business jet market has rebounded. This additional demand requires us to continue and step up our investments in R&D, technical service and associated qualification costs. The unprecedented number of new platforms in this industry opens up windows of opportunity for us to bring the value of our technologies such as thermoplastics, resin infusion and engineered fabrics and adhesive surfacing films to our customers together with our established composite and structural adhesive capabilities. These technology insertion points tend to be longer term in nature and the work we do today is the basis for future sales and earnings.

We continue to expand our carbon fiber capacities to meet the increasing demand and develop new technologies for fibers with enhanced structural properties. We believe that the aerospace industry has tremendous growth potential in the short and medium term.

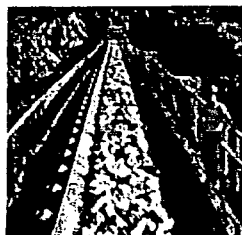
In summary, we remain confident that we have capabilities within Cytec to meet the growth opportunities ahead of us. We will also retain our focus on cash flow by driving business profitability, optimizing working capital, and prioritizing investments on safety and environmental improvements and also on high-return projects so that we can continue to rapidly pay down debt. This approach also allows us to deliver an improved return on our assets and meet our goal of enhancing shareholder value.



David Lilley
Chairman, President, and Chief Executive Officer

Cytec Specialty Chemicals – President Shane Fleming

We're committed to our vision – being number one or two in our chosen markets. Right now, we're leading the mining chemicals, RADCURE resins and powder coating resins markets and expect to build on these positions with our new product technologies. We also continue to invest in our strong technology platforms for other markets. In many cases, we've developed cost-effective, environmentally friendly products that will drive future growth and further strengthen our market positions.

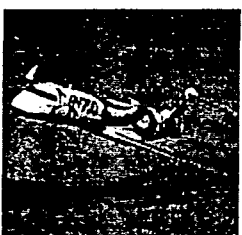


A big advantage we now have is the combined assets and resources of the two specialty chemical business units that were pulled together to form the new Cytec Specialty Chemicals. Being able to leverage this larger, global organization and share best practices throughout our sales, marketing, R&D and technical service teams, allows us to get closer to our customers and better understand market needs – hence driving innovation. The support we offer customers extends to our physical presence as well. Our manufacturing operations around the globe have the infrastructure to expand and meet the demands of high growth markets like Asia.

We've got the right people, in the right positions with the right tools to take advantage of the markets we are targeting. We want the industry to know...Cytec is the preferred supplier.

Cytec Engineered Materials – President Steve Speak

Cytec Engineered Materials is first and foremost a technology business. Through technology, we've consistently delivered value to our customers which translates into value for shareholders. Our success is built on our ability to deliver innovative material solutions for the most demanding applications.



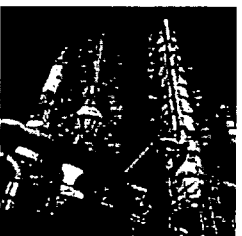
We start with deep industry knowledge, an industry-leading product and qualification portfolio, and a highly motivated team of creative people. We add solid understanding of our customers' needs and an innovative technology team that translates basic material science into

value-creating products. Our strong applications support in our customers' facilities and solid manufacturing execution ensures that our solutions help our customers deliver value to their customers.

The advanced composite market is growing, driven by new applications in market sectors in which we operate. We'll continue to grow our leadership position through continuous innovation in advanced materials and our ability to provide highly integrated technical solutions to our customers. Building on our solid history, we'll continue to make strategic investments in technology, capacity, capability and operational excellence – striving toward Cytec's vision.

Building Block Chemicals – President Jas Gill

We produce basic building block chemicals safely, efficiently and reliably to enable quality down-stream specialty chemical manufacturing. Simply put, we strive to be world-class operators of our facilities. Our team-based philosophy allows us to discover and implement many synergies inherent in our operating structure.



Leading the list of synergistic value is energy conservation. Our combination of chemistries

enables us to cost-effectively balance process steam across production units to minimize natural gas purchases. Our operating unit partnerships on site also play into the synergy equation by absorbing a portion of infrastructure costs.

In our business model, we leverage our unique strengths in the market. We encourage a team-oriented workforce, maximize the benefits of our location and position ourselves to take advantage of the energy markets when they return to global parity.

Our mission is to contribute to the value of Cytec...and it's the people that help drive our competitive advantage.

OUR COMMITMENT

At Cytec, we are committed to the safety, health and security of our employees, customers and neighbors, and to the protection of the environment. We maintain and improve our policies and programs to prevent accidents and injuries, reduce waste generation and energy use, and recycle. We work with only the most responsible suppliers, contractors, distributors and transporters and maintain open dialogue with all our stakeholders. We believe there is no other way to operate our business.

Responsible Care®

Our values, and the principles defined in our Safety, Health & Environmental (SH&E) policy, guide our daily activities. Our SH&E policy requires that we strive to reduce our impact on society and the environment, and manage risk. Therefore, Cytec embarked on an ambitious program to certify all our sites globally in the American Chemistry Council's Responsible Care 14001 program (RC14001). This program requires us to identify areas where we can improve our SH&E and security performance, and develop action plans to address concerns. Two sites and our headquarters have successfully implemented the system and passed third party audits. Twelve more sites will complete the program in 2006, with the remaining U.S. sites to finish in 2007 and all global sites completed by 2008. We always want our actions to speak louder than our words.

Environmental Sustainability and the RC Global Charter

Cytec is committed to, and works toward, environmentally sustainable products and practices. The need to balance economic prosperity with environmental quality and social equity challenges every organization and will be a priority as we develop new products, improve processes and plan to meet our customers' future needs.

As a member of the American Chemistry Council, we strongly support the Responsible Care program. Last year, the International Council of Chemical Associations Board of Directors approved the Global Responsible Care Charter that focuses on important challenges facing the chemical industry. Cytec intends to embrace the nine key elements of the Charter, some of which are to adopt core principles; commit to advancing sustainable development; enhance product stewardship, and champion and facilitate the extension of Responsible Care throughout the chemical industry's value chain. We must lead if we expect others to follow.

Performance Goals

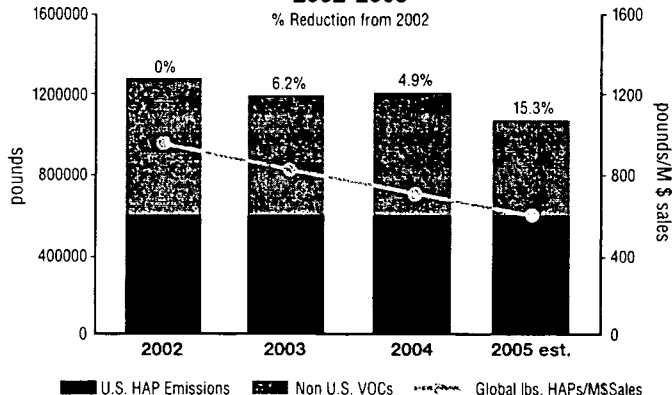
Setting goals for every year is a serious task as we look at our performance from the past year, our long-term goals, our resources and our capabilities. We always strive for continuous improvement and have set aggressive goals that require everyone to stretch.

Safety is paramount, and with the implementation of RC14001, we believe we'll see a boost to our performance over time. Although no injury is acceptable, the recordable injury frequency goal will remain less than 1.0 for 2006 but reduce to 0.5 by 2010. In 2005, our rate was 1.2 which did not meet our goal. However, we did not have as many severe injuries as compared to the prior year.

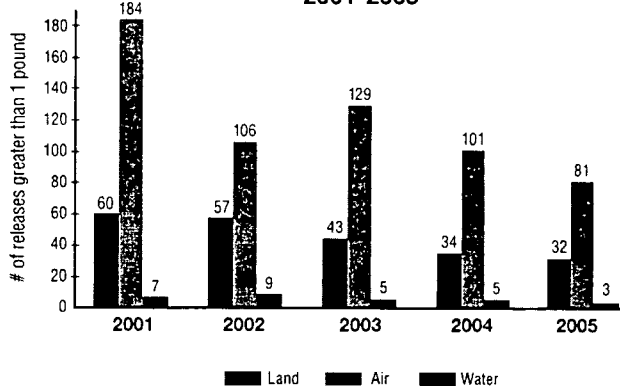
Energy resources will continue to be a challenge for everyone in the industry and we have launched an energy use and efficiency assessment program to better manage our future. When the facts are collected, we will set a long-term goal for 2012.

Cytec is committed to continuous improvement in all areas of safety, health and environmental performance as well as being a good neighbor, employer and supplier.

Hazardous Air Pollutants* 2002-2005



Environmental Releases* 2001-2005



TO OUR STAKEHOLDERS

2005 was a landmark year for Cytec. Among the events that occurred during the year in chronological order were the following:

February - We announced a price reduction for our pending acquisition of UCB's Surface Specialties business. The revised value was approximately \$1.8 billion.

February - We entered into credit agreements totaling \$1.775 billion in preparation for the acquisition of UCB's Surface Specialties business. The agreements included a \$725 million 5-year term loan facility and a \$700 million 364-day credit facility both for use in partially financing the acquisition, as well as a \$350 million 5-year revolving credit facility to provide additional liquidity for general corporate purposes.

February - We acquired Surface Specialties for cash of about \$1.5 billion plus stock of Cytec valued at about \$300 million.

March - Moody's and Standard and Poor's maintained their investment grade ratings on Cytec.

June - We sold our 50% interest in CYRO Industries to our partner Degussa for about \$100 million. Net proceeds were used to reduce acquisition related debt.

August - Hurricane Katrina hit the U.S. Gulf Coast ultimately costing us over \$10 million in lost profits and beginning a significant upward push to our raw material and energy costs. Fortunately, none of our employees suffered any injuries and damage to our plants was relatively minor.

September - We sold Surface Specialties' amino resins business to INEOS for about \$75 million. Net proceeds were also used to reduce acquisition related debt.

September - Hurricane Rita hit the U.S. Gulf Coast driving our raw material and energy costs to all time highs. Fortunately, none of our plants were directly impacted and as far as energy costs, we were mostly protected in the near term by our hedging program.

September - In anticipation of our bond offering, Moody's and Standard and Poor's reaffirmed their investment grade ratings on our debt.

We sold \$500 million of bonds - \$250 million of 5.5% 5-year notes and \$250 million of 6.0% 10-year notes. Following the closing in **October**, we paid off the remaining balance outstanding on our acquisition related 364-day credit facility.

October - We completed the expansion of our Mt. Pleasant plant in Tennessee, U.S. to increase production of metal extractant products used in the copper mining industry by 50%.

In terms of full year results, I offer the following comments:

Acquisition of Surface Specialties - We were disappointed with the initial results from the acquisition. There are many reasons for this including numerous external factors beyond our control but the fact is we didn't achieve our own objectives. However, our recently announced reorganization to form Cytec Specialty Chemicals should allow us to accelerate improvements in the acquired operations and ultimately prove our strategy on this acquisition.

Debt Repayment - Notwithstanding the initial results from the acquisition, we were successful in reducing our debt outstanding to below what we had forecast shortly before the acquisition was completed. The people of Cytec demonstrated again that as an organization in total, we are quite capable of generating substantial cash.

Debt Ratings - We retained our investment grade ratings and are committed to making appropriate efforts to retain them in the future. Investment grade ratings are obviously important to our current bond holders but also provide us with the financial flexibility to grow efficiently in the future.

Overall, we had a challenging year particularly in regards to the acquisition. However, I believe we are following a sound strategy supported by excellent people with adequate financial resources. We will continue to work on the things we can control and be mindful of the things that we can not control. We define mindful as having the ability to anticipate and become aware of unexpected events. As such, we hope to be able to mitigate adverse consequences of future events or, more hopefully, seize opportunities presented by future events to Cytec's benefit.

I encourage you to read our annual report on Form 10-K. This year we have made a concentrated effort to use "plain English" and eliminate all redundancies and duplicate data, unless they are added for clarification or amplification or are required by law, regulation or convention. We hope these changes add clarity and crispness to our disclosures and as always we will be open with communications to our stakeholders.

Sincerely,



James P. Cronin
Executive Vice President and Chief Financial Officer



UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2005

Commission file number 1-12372

Cytec Industries Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

22-3268660

(I.R.S. Employer
Identification No.)

Five Garret Mountain Plaza

West Paterson, New Jersey

(Address of principal executive offices)

07424

(Zip Code)

Registrant's telephone number, including area code (973) 357-3100

Securities registered pursuant to Section 12(b) of the Act:

Title of each class

Common Stock, par value \$.01 per share

Name of exchange on which registered

New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:

None

(Title of Class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to the filing requirements for at least the past 90 days. Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. Yes ☐ No ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

At June 30, 2005 the aggregate market value of common stock held by non-affiliates was \$1,815,762,963 based on the closing price (\$39.80) of such stock on such date.

There were 46,392,768 shares of common stock outstanding on January 31, 2006.

DOCUMENTS INCORPORATED BY REFERENCE

Documents

Portions of Proxy Statement for 2006 Annual Meeting
Of Common Stockholders, dated March 20, 2006.

Part of Form 10-K

Parts III, IV

955790274

**CYTEC INDUSTRIES INC. AND
SUBSIDIARIES
FORM 10-K
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**COMMENTS ON
FORWARD-LOOKING STATEMENTS**

A number of the statements made by us in our Annual Report on Form 10-K, or in other documents, including but not limited to the Chairman, President and Chief Executive Officer's and Executive Vice President and Chief Financial Officer's letters to stockholders and stakeholders, respectively, our press releases and other periodic reports to the Securities and Exchange Commission, may be regarded as "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995.

Forward-looking statements include, among others, statements concerning our (including our segments) outlook for the future, anticipated results of acquisitions and divestitures, pricing trends, the effects of changes in currency rates and forces within the industry, the completion dates of and anticipated expenditures for capital projects, expected sales growth, operational excellence strategies and their results, expected annual effective tax rates, our long-term goals and other statements of expectations, beliefs, future plans and strategies, anticipated events or trends and similar expressions concerning matters that are not historical facts. Such statements are based upon our current beliefs and expectations and are subject to significant risks and uncertainties. Actual results may vary materially from those set forth in the forward-looking statements.

The following factors, among others, could affect the anticipated results: the ability to complete the successful integration of Surface Specialties, including realization of anticipated synergies within the expected timeframes or at all, and the ongoing operations of the business; the retention of current ratings on our debt; changes in global and regional economies; the financial well-being of end consumers of our products; changes in demand for our products or in the quality, costs and availability of our raw materials and energy; customer inventory reductions; the actions of competitors;

currency and interest rate fluctuations; technological change; our ability to renegotiate expiring long-term contracts; changes in employee relations, including possible strikes; government regulations, including those related to taxation and those particular to the purchase, sale and manufacture of chemicals or operation of chemical plants; governmental funding for those military programs that utilize our products; litigation, including its inherent uncertainty and changes in the number or severity of various types of claims brought against us; difficulties in plant operations and materials transportation, including those caused by hurricanes or other natural forces; environmental matters; returns on employee benefit plan assets and changes in the discount rates used to estimate employee benefit liabilities; changes in the medical cost trend rate; changes in accounting principles or new accounting standards; political instability or adverse treatment of foreign operations in any of the significant countries in which we operate; war, terrorism or sabotage; epidemics; and other unforeseen circumstances.

Unless indicated otherwise, the terms "Cytec", "the Company", "we", "us", and "our" each refer collectively to Cytec Industries Inc. and its subsidiaries.

AVAILABLE INFORMATION

We maintain a website that contains various information on our Company and products. It is accessible at www.Cytec.com. Through our website, stockholders and the general public may access free of charge (other than any connection charges from internet service providers) filings we make with the Securities and Exchange Commission as soon as practicable after filing. Filing accessibility in this manner includes the Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) of the Securities Exchange Act of 1934.

PART I

ITEM 1. BUSINESS

We are a global specialty chemicals and materials company focused on developing, manufacturing and selling value-added products. Our products serve a diverse range of end markets including aerospace, adhesives, automotive and industrial coatings, chemical intermediates, inks, mining, plastics and water treatment. We use our technology and application development expertise to create chemical and material solutions that are formulated to perform specific and important functions for our customers. We operate on a global basis with 40% of our 2005 revenues in North America, 40% in Europe, 14% in Asia-Pacific and 6% in Latin America. We have manufacturing and research facilities located in 20 countries. We had net sales of \$2,925.7 million and earnings from operations of \$160.5 million in 2005. Cytec was incorporated as an independent public company in December 1993.

On February 28, 2005, we completed the acquisition of the Surface Specialties business ("Surface Specialties") of UCB SA ("UCB") for cash and stock valued at approximately \$1,774.3 million, net of working capital adjustments of \$25.4 million. In connection with the acquisition, we also incurred transaction costs of approximately \$14.9 million. This acquisition complemented our existing product offering to the coatings industry including the general industrial, automotive, architectural, plastic, ink and wood sectors.

The Surface Specialties business had revenues of approximately \$1,350 million in 2004 which included approximately \$154 million of sales from the Surface Specialties amino resins ("SSAR") product line. Pursuant to regulatory approvals, we were required to divest SSAR. On August 31, 2005, we sold SSAR to affiliates of INEOS Group Limited for cash consideration of \$76.6 million (€62.7 million at \$1.22 per euro). This completed our commitments under orders from the Federal Trade Commission and the European Community to divest SSAR following our acquisition of the Surface Specialties business.

After giving effect to the acquisition and a subsequent reorganization, we realigned our four

business segments to include: Cytec Performance Chemicals, Cytec Surface Specialties, Cytec Engineered Materials and Building Block Chemicals. Cytec Performance Chemicals and Cytec Surface Specialties are managed under one executive leader, and are referred to collectively as Cytec Specialty Chemicals. Cytec Performance Chemicals includes our water treatment chemicals, mining chemicals, phosphine and phosphorous specialties, polymer additives and specialty additives all of which were previously reported as Cytec Performance Specialties, as well as urethanes and the acquired polyurethanes and pressure sensitive adhesives product lines which were previously included in Cytec Surface Specialties. Cytec Surface Specialties includes radiation-cured resins (Radcure resins), powder coating resins and liquid coating resins which include various product lines such as water-borne resins and solvent based resins. Cytec Engineered Materials principally includes advanced composites and structural film adhesives. Building Block Chemicals principally includes acrylonitrile, hydrocyanic acid, acrylamide, sulfuric acid and melamine.

Our corporate vision is to be a premier specialty chemicals and materials company through customer focus, superior technology, operational excellence and employee commitment. To achieve our corporate vision, our strategy includes the following initiatives:

- Focus on developing applications and solutions that meet customer needs. We seek to collaborate closely with our customers to understand their needs and provide them with a superior value proposition, whether through improvement in product quality, reduced part cost or a new enabling technology. We seek to market our specialty products in terms of the value they provide and focus on delivering a high level of technical service to our customers as we work with them on solving problems and providing them with better products for their applications. For example, our liquid coating resins technologies benefit customers by delivering valuable performance properties while helping them meet evolving environmental standards, including reducing or eliminating the need for solvents and other volatile organic compounds.

- Technology leadership. We are dedicated to creating a sustainable competitive advantage through superior technology. We believe our technology is the ultimate engine of our growth and success. To that end we focus on our new product pipeline and delivering value-added products to our customers every year. For example, we have continued to invest in the Cytex Engineered Materials segment by recruiting technical service as well as Research and Development personnel to take advantage of the growing potential for new applications for our technology. Our technology leadership position resulted in one of our high temperature resins systems being used in the F-35 Joint Strike Fighter program. Additionally, within the Cytex Surface Specialties segment, we are developing hybrid resins, in which radiation-curable properties are combined with water-based or powder-based technologies, and in more complex application, such as coil coating, automotive repair, ultraviolet inkjet printing and flat-panel displays.
- Seek geographical expansion of our business. We operate on a global basis with manufacturing plants located in 20 countries. Our recent acquisition of Surface Specialties gave us local manufacturing operations in high growth emerging markets where we can continue to expand sales from existing production and add new technologies as markets develop. We can now service customers better in such countries as China, Thailand, Malaysia, Korea and Brazil.
- Pursue operational excellence and efficiencies. We are focused on operational excellence. To develop and implement best practices, we benchmark our performance against our competitive peer group. This has had a significant positive impact in terms of our safety and environmental performance. Manufacturing has the largest impact on our costs and we use various techniques to reduce our product costs by improving process yields, reducing batch times, increasing capacity and improving and/or streamlining our manufacturing processes.

On June 1, 2005, we sold our 50% ownership in CYRO Industries ("CYRO") to our joint venture partner Degussa Specialty Polymers, an affiliate of Degussa AG, for cash consideration of \$95.0 million plus \$5.4 million for working capital adjustments. The proceeds of this transaction essentially recovered the carrying value of our investment in CYRO. Net proceeds of the sale were used to reduce debt incurred to fund the Surface Specialties acquisition.

In the course of our ongoing operations, we have made a number of strategic business and product line acquisitions and dispositions. All acquisitions have been recorded using the purchase method of accounting. Accordingly, the results of operations of the acquired companies have been included in our consolidated results from the dates of the respective acquisitions.

Our management team regularly reviews our product line portfolio in terms of strategic fit and capital allocation based on financial performance which includes factors such as growth, profitability and return on invested capital. From time to time, we may also dispose of or withdraw certain product lines. We may also acquire additional product lines or technologies. We conduct regular reviews of our plant sites' cost effectiveness, including individual facilities within such sites.

SEGMENT INFORMATION

Revenues from external customers, earnings from operations and total assets for each of our four reportable segments can be found in Note 17 of the Notes to Consolidated Financial Statements which are incorporated by reference herein. This information has been restated to reflect our realigned reporting segments which were changed in March 2005 in connection with the acquisition of Surface Specialties and then again slightly in November 2005 in connection with certain strategic decisions made by us.

CYTEC PERFORMANCE CHEMICALS

Set forth below are our primary product lines and major products in this segment and their principal applications.

Product Line	Major Products	Principal Applications
Mining chemicals	Promoters, collectors, solvent extractants, flocculants, frothers, filter and dewatering aids, antiscalants, dispersants, depressants, defoamers and reagents	Mineral separation and processing for copper, alumina and certain other minerals
Polymer additives	Ultraviolet light stabilizers and absorbers, high performance antioxidants and antistatic agents	Plastics, coatings, and fibers for: agricultural films, automotive parts, architectural lighting, fiberglass, housewares, packaging, outdoor furniture, sporting goods, toys and apparel
Adhesives	Pressure sensitive adhesives: water-borne and solvent-borne	Signage, labels, tapes, graphics, medical and specialty coaters
Specialty additives and Phosphines	Surfactants, specialty monomers, acrylic stabilizers, solvent extractants, flame retardants, catalyst ligands, high purity phosphine gas and biocides	Textiles, non-wovens and adhesives, super absorbent products, mineral processing, pharmaceutical, chemical and electronic manufacturing, and fumigants
Specialty urethanes	Polyurethanes and urethane resins, carbamates and epoxy resin systems	Breathable textile coatings, formulated polyurethane and epoxy systems, adhesives, inks and sealants
Water treatment chemicals	Flocculants, coagulants, filter aids, drilling fluids and production chemicals, scale inhibitors, friction reducers and mobility control polymers	Water and wastewater treatment, raw water clarification, process water treatment, oil field drilling, production, recovery, refining, sugar processing and municipal waste

We market our performance chemicals through specialized sales and technical service staffs for each of our product lines. Sales are usually made directly to large customers and through distributors to smaller customers. We have achieved growth in our performance chemicals sales by finding new applications for our existing products as well as developing new products. Certain of our products in this segment, primarily water treatment chemicals, are manufactured using acrylamide that is manufactured by our Building Block Chemicals

segment. For further discussion of raw materials, refer to "Customers and Suppliers."

MINING CHEMICALS

Our mining chemicals product line is primarily used in applications to separate desired minerals from host ores. We have leading positions in the copper processing industry, particularly in the flotation and solvent extraction of copper. We also have a

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leading position in the alumina processing industry, where our patented HxPAMs are particularly effective at the flocculation of "red mud." We also sell phosphine specialty reagents which have leading positions in cobalt-nickel solvent extraction separation and complex sulfide flotation applications. In 2003, we broadened our mining chemicals product line by acquiring from Avecia its metal extractant product ("MEP") line. The MEP product line has a leading position for solvent extraction processing of copper oxide ores. In late 2005, we completed a capital project to increase our MEP capacity by about 50%. Demand for mining chemicals is cyclical and varies with industry conditions such as global demand, inventory levels and prices for the particular minerals with respect to which our products have processing applications. We strive to develop new technologies as well as new formulations tailored for specific applications.

POLYMER ADDITIVES

We are a global supplier to the plastics industry of specialty additives which protect plastics from the ultraviolet radiation of sunlight and from oxidation. We seek to enhance our position with new products based on proprietary chemistries, such as our proprietary technology for CYASORB THT ultraviolet stabilizer, and our solutions-based technical support. CYASORB THT provides much improved ultraviolet stabilization efficiency and cost effectiveness. In certain cases, we use a combination of additives to achieve a level of efficiency not previously achieved in polymer applications.

ADHESIVES

As part of our acquisition of Surface Specialties, we acquired specialty pressure sensitive adhesives for both water- and solvent-based systems. The product line has numerous formulations featuring innovative products, such as high-performance emulsions and removable adhesives.

SPECIALTY ADDITIVES AND PHOSPHINES

We are a leading global supplier of acrylamide based specialty monomers and sulfosuccinate

surfactants. These products are used in emulsion polymers, paints, paper coatings, printing inks, and other diverse customer applications.

Our phosphine specialties are utilized for a variety of applications. We are a leading supplier of ultra-high purity phosphine gas, used in semiconductor manufacturing and light emitting diode applications, and have significant positions in various phosphine derivative products including phosphonium salts used in pharmaceutical catalysts and biocides. In 2003, we acquired from Avecia its organo phosphorus product line as part of its Intermediates and Stabilizers product line. The compounds are used primarily as intermediates and catalyst ligands for organic and chemical synthesis in the pharmaceutical and chemical industries.

SPECIALTY URETHANES

As part of our acquisition of Surface Specialties, we acquired a specialty line of polyurethane resins and systems. This plus our existing line of urethanes, carbamates and epoxy resin systems are used in high-performance applications in industries such as aerospace, automotive, military, computers, biomedical, textiles and electrical/electronics.

WATER TREATMENT CHEMICALS

Our water treatment chemicals product line consists primarily of products for use in applications such as treatment of industrial waste streams and industrial influent water supplies to remove suspended solids, drilling mud conditioners for oil service companies and as sewage conditioners for municipal wastewater treatment. Increased demand for clean water, environmental regulations and regional and global economic development have increased demand for our water treatment chemicals. We also produce paper chemicals under a long-term manufacturing supply agreement that expires in October 2008.

CYTEC SURFACE SPECIALTIES

Set forth below are our primary product lines and major products in this segment and their principal applications.

Product Line	Major Products	Principal Applications
Liquid coating resins	Water-borne and solvent-borne epoxies, alkyds and acrylics, cathodic electro-deposition resins, phenolic resins, amino resins and additives	Automotive and industrial coatings for appliances, automobiles, containers, metal fixtures, metal and wood furniture, and heavy-duty industrial machinery, architectural applications, products used in textiles coating, abrasives, tires, electronics, marine, sanitary and swimming pools
Powder coating resins	Ultraviolet and conventional powders	Powder coatings for industrial and heavy duty metal applications, appliance, white goods, architecture and wood
Radcure resins	Oligomers, photo-initiators, monomers	Coatings and inks used in industrial metal, wood and plastic coatings including parquet, safety glass interlayer, printing inks and varnishes

We market our surface specialty chemicals through specialized sales and technical service staffs for each of our product lines. Sales are typically made directly to large customers and through distributors to smaller customers. Certain of our products, primarily amino resins, in this segment are manufactured using melamine that is manufactured by our Building Block Chemicals segment. For further discussion of raw materials, refer to "Customers and Suppliers."

LIQUID COATING RESINS

As part of our acquisition of Surface Specialties, we acquired a broad range of water-borne and solvent-borne resins. Together with our amino resins product line, we are now a market leader in resins for high-solids and water-borne coating systems. Our extensive portfolio includes products based on seven chemistries: acrylics, amino resins, epoxy systems, alkyds and polyesters, polyurethanes, phenolics and unsaturated polyesters.

We also market a broad range of additives to assist customers in formulating high-performance coatings for protective and decorative applications. Along with individual additives, we have developed formulated products that combine multiple additives to achieve specific performance properties targeted to meet the needs of diverse industries.

POWDER COATING RESINS

As part of our acquisition of Surface Specialties, we acquired pioneering polyester powder resin technologies for the rapidly growing market for powder coatings. Today, these coatings which are considered environmentally friendly account for a significant portion of the industrial finishing market. We offer innovations such as powder resins for super durable clearcoats, weather-resistant finishes and ultraviolet-curing powder coating systems for heat-sensitive substrates such as plastic and wood. These powder coatings provide original equipment manufacturers with a number of cost and environmental benefits compared to traditional coating systems.

RADCURE RESINS

We are a leading producer of environmentally friendly, radiation-cured resins for high-performance coatings and graphics applications which we acquired as part of our acquisition of Surface Specialties. These resins are cured (dried and hardened) by exposing them to ultraviolet or electron-beam radiation, rather than heat which typically reduces processing costs and increases productivity. Products such as inks, compact discs, credit cards, packaging and coatings for wood products utilize advanced resins like the ones we have developed.

CYTEC ENGINEERED MATERIALS

Our Cytec Engineered Materials segment primarily manufactures and sells aerospace materials that are used mainly in commercial and military aviation, satellite and launch vehicles, aircraft brakes and certain high-performance applications such as Formula 1 racing cars and high-performance sports cars.

CYTEC ENGINEERED MATERIALS

We manufacture and sell advanced structural film adhesives and advanced composite materials primarily to the aerospace industry and other high performance specialty applications. The primary applications for both aerospace adhesives and advanced composites are large commercial airliners, regional and business jets, military aircraft (including rotorcraft, satellites and launch vehicles), high-performance automotive and specialty applications.

Advanced composites are exceptionally strong and lightweight materials manufactured by impregnating fabrics and tapes made from high performance fibers (such as carbon fiber) with epoxy, bismaleimide, phenolic, polyimide and other resins formulated or purchased by us.

Sales are dependent to a large degree on the commercial and military aircraft build-rates and the number of applications and aircraft programs for which we are a qualified supplier. Every major commercial aircraft program in the Western world has qualified and uses certain of our products. We are a major supplier to such military programs as

the F-35 Joint Strike Fighter, the F/A-22 and F/A-18 combat aircraft and the C-17 transport aircraft. We have a number of long term agreements, expiring over various periods, to supply aerospace customers with their requirements, subject to various exceptions, of various specialty materials at prices that are generally fixed by year.

Advanced composites generally account for a higher percentage of the structural weight on a military aircraft than on a commercial aircraft. They also account for a higher percentage of the structural weight on newer design commercial aircraft than older design commercial aircraft as technology progresses and manufacturers design planes to achieve greater fuel efficiency. Advanced composites made from carbon fibers and epoxy or bismaleimide resins are primarily used for structural aircraft applications such as wing, tail and rudder components, engine housings, and fuselage components while advanced composites made from fiberglass or aramid materials and phenolic resins are primarily used for secondary structure applications such as fairings and interior aircraft applications such as sidewall, ceiling and floor panels and storage and cargo bins. In addition, our ablatives are used in manufacturing rocket nozzles and our carbon/carbon products are used in manufacturing aircraft and other high performance brakes. We expect the demand for advanced composites to continue to increase. In order to meet this demand, in 2004 we completed an expansion of our production facility in Oestringen, Germany.

Our aerospace adhesives and advanced composites also have various applications in industrial, high performance automotive and selected recreational products. We are seeking to leverage our engineered materials portfolio with customers in these and other new markets where we can add value.

We purchase from third parties all of the aramid and glass fibers and much of the carbon fibers and base resins used in the manufacture of composites. Approximately 35% of our demand for carbon fibers is sourced from Cytec Carbon Fibers as discussed below. Refer to "Customers and Suppliers."

We market aerospace materials primarily through a dedicated sales and technical service staff typically direct to customers.

CYTEC CARBON FIBERS

We manufacture and sell various high-performance grades of both polyacrylonitrile ("PAN") type and pitch type carbon fibers. Carbon fibers are mainly used as a reinforcement material for advanced composites used in the aerospace and certain other industries and have many advantageous characteristics such as light weight, high tensile strength and strong heat resistance. Approximately 60% of our carbon fiber production is utilized by Cytec Engineered Materials with the balance being sold to third parties. We have recently commenced a project to increase our production of PAN carbon fiber by approximately 25%. This project is expected to be completed by the third quarter of 2006.

BUILDING BLOCK CHEMICALS

Building Block Chemicals are manufactured primarily at our world-scale, highly integrated Fortier facility. The Fortier facility is located on the bank of the Mississippi River near New Orleans, Louisiana and has access to all major forms of transportation and supplies of raw materials. This segment's product line includes acrylonitrile, hydrocyanic acid, acrylamide, sulfuric acid and melamine that are produced both for use internally within our other segments and for merchant sale. We strive to operate our plants at capacity subject to market conditions and raw material availability. Due to hurricane activity in the Gulf region, our Fortier facility experienced reduced production levels during the third quarter of 2005. This reduction in production level was primarily due to our decision to safely shut down the facility in advance of the hurricanes and the subsequent temporary loss of power and natural gas supply.

MELAMINE

American Melamine Industries ("AMEL"), a 50% owned manufacturing joint venture with a subsidiary of DSM N.V. ("DSM"), operates the melamine manufacturing plant with an annual

production capacity of approximately 160 million pounds at our Fortier facility. We typically use approximately 80% to 90% of our 50% share of AMEL's production, primarily for the production of amino resins for our liquid coating resins product line with the balance being sold to third parties. As allowed by the terms of the joint venture agreement, DSM has given us notice of termination of the joint venture effective August 1, 2007 and has nominated zero output from AMEL during the first two months of 2006 citing high raw material input costs, notably those impacted by North American natural gas pricing. DSM has stated their intent to monitor raw material pricing in North America and possibly resume production when economically attractive. We have served notice to AMEL to operate the melamine plant to produce our half of the output capacity. If DSM takes zero output from AMEL throughout 2006, we estimate that it will have a negative economic impact to Cytec of approximately \$5.0 million due to the loss of certain efficiencies that accompany the plant when it operates at capacity. DSM filed a lawsuit against us in 2006 seeking immediate dissolution of AMEL or the appointment of a receiver for AMEL, the rescission of the services agreement between Cytec and AMEL and compensatory damages. We believe the lawsuit is without merit and we are vigorously defending against all of the claims.

ACRYLONITRILE AND HYDROCYANIC ACID

We anticipate that over the near term we will internally use approximately 30% of our current acrylonitrile production to produce acrylamide. We expect to sell up to approximately 40% of our current acrylonitrile production to an international trading company under a long-term distribution agreement at a market based price. We sell hydrocyanic acid, a co-product of the manufacture of acrylonitrile, under a long-term supply agreement to a tenant at our Fortier site.

OTHER BUILDING BLOCK CHEMICALS

We manufacture and sell acrylamide and sulfuric acid. We anticipate that over the near term we will internally use approximately 40% of our acrylamide production capacity for the production of certain products primarily for our Cytec Performance

Chemicals segment with the balance being sold to third parties. We sell sulfuric acid and regenerated sulfuric acid under a long-term supply agreement to a tenant at our Fortier site and sell sulfuric acid in the merchant marketplace.

Prices of Building Block Chemicals are sensitive to the stages of economic cycles, raw material cost and availability, energy prices and currency rates, as well as to periods of insufficient or excess capacity. Building Block Chemicals and its competitors tend to operate their plants at capacity even in poor market environments, which may result in strong downward pressure on product pricing.

We sell Building Block Chemicals to third parties through a direct sales force and distributors.

ASSOCIATED COMPANY AND MINORITY INTERESTS

Through May 31, 2005, we had one associated company that was material to our operations, CYRO Industries ("CYRO"), a 50% owned joint venture. Upon acquisition of Surface Specialties, we acquired a 50% ownership interest in SK Cytec Co., Ltd. and two majority-owned entities, none of which are material to the results of our operations.

COMPETITION

We actively compete with companies producing the same or similar products and, in some instances, with companies producing different products designed for the same uses. We encounter competition in price, delivery, service, performance, product innovation and product recognition and quality, depending on the product involved. For some of our products, our competitors are larger and have greater financial resources than we do. As a result, these competitors may be better able to withstand a change in conditions within the industries in which we operate, a change in the prices of raw materials without increasing their prices or a change in the economy as a whole.

Our competitors can be expected to continue to develop and introduce new and enhanced products, which could cause a decline in market

acceptance of our products. Current and future consolidation among our competitors and customers may also cause a loss of market share as well as put downward pressure on pricing. Our competitors could cause a reduction in the prices for some of our products as a result of intensified price competition. Competitive pressures can also result in the loss of major customers.

In general, we compete by maintaining a broad range of products, focusing our resources on products in which we have a competitive advantage and fostering our reputation for quality products, competitive prices and excellent technical service and customer support. To help increase sales and margins, we are seeking to leverage our research and development efforts to develop value-added products and products based on proprietary technologies. If we cannot compete successfully, our businesses, financial condition and results of operations could be adversely affected.

CUSTOMERS AND SUPPLIERS

Sales to three of our customers, including sales to these customers' subcontractors, are significant to our Cytec Engineered Materials segment. The loss of these customers and related subcontractors would have a material adverse effect on the operating results of our Cytec Engineered Materials segment. Sales of hydrocyanic acid and the sale and regeneration of sulfuric acid to one of our customers are significant to our Building Block Chemicals segment. The loss of this customer would have a material adverse effect on the operating results of our Building Blocks Chemicals segment. Sales to one customer of our Cytec Surface Specialties segment are significant to this segment and, if such sales were lost, would have a material adverse effect on the operating results of our Cytec Surface Specialties segment. A summary of various long-term customer supply agreements is disclosed in Note 11 of the Notes to Consolidated Financial Statements which are incorporated by reference herein.

A number of our customers operate in cyclical industries such as the aerospace, automotive, mining and paper industries. This in turn, causes demand for our products to also be cyclical.

Industry cycles also impact profitability of our Building Block Chemicals' sales.

Key raw materials for the Cytec Specialty Chemical segments and the Building Block Chemicals segment are propylene, ammonia, methanol derivatives, propylene derivatives such as acrylic acid and natural gas for energy. Key raw materials for the Cytec Engineered Materials segment are carbon fiber and various resins. We require natural gas, propylene, ammonia and sulfur to manufacture our Building Block Chemicals. These are typically available although we have experienced tight markets for certain raw materials from time to time.

Oil and natural gas are important indirect raw materials for many of our products. The prices of both of these raw materials have been volatile over time and have risen sharply in 2005. Because natural gas is not easily transported, the price may vary widely between geographic regions. The price of natural gas in the U.S. is typically higher than the price in many other parts of the world. Many of our products compete with similar products made with less expensive natural gas available elsewhere and we may not be able to recover any or all of the increased cost of gas in manufacturing our products.

Our Fortier facility is served principally by a single propylene pipeline owned by a supplier. Other suppliers can utilize the pipeline for a transportation fee. We also have arrangements to obtain propylene by rail.

To minimize reliance on any one supplier, we generally attempt to retain multiple sources for high volume raw materials, other than our own Building Block Chemicals. We source our requirements of cationic monomers, important raw materials in the water treatment chemicals and mining chemicals product lines, from a single supplier under a long-term agreement. We are dependent on a limited number of suppliers for carbon fibers that are used in many of our advanced composite products. As we manufacture some of our own carbon fibers, the risk of future carbon fiber supply limitations is somewhat reduced. Currently carbon fiber is in short supply and until market capacity increases,

shortages are possible. There can be no assurance that the risk of encountering supply limitations can be entirely eliminated.

Changes to raw material costs year on year are an important factor in profitability. Raw material prices can increase or decrease based on supply and demand and other market forces. We have from time to time experienced difficulty procuring several key raw materials, such as propylene, natural gas and carbon fiber, due to general market conditions or conditions unique to a significant supplier and may experience supply disruptions of these and other materials in the future. During such periods, prices of the relevant raw materials may increase significantly and potentially adversely affect our profit margins. Additionally, such conditions, if protracted, could result in our inability to manufacture our products, resulting in lower than anticipated revenues. Due to the impact of both Hurricane Katrina and Hurricane Rita, there was a regional disruption in the supply of natural gas.

We expect to continue to encounter tight markets for certain key raw materials during 2006. Limited availability of these materials could lead to increased prices which we may or may not be able to pass on to our customers. If we are unable to raise our selling prices to recover the increased costs of raw materials driven by higher energy costs or other factors, our profit margins will be materially adversely affected.

INTERNATIONAL

We operate on a global basis, with manufacturing and research facilities located in 20 countries. Through our sales forces, third party distributors and agents, we market our products internationally. Financial geographical information is contained in Note 17 of the Notes to Consolidated Financial Statements which are incorporated by reference herein.

International operations are subject to various risks which may not be present in U.S. operations. These risks include political instability, the possibility of expropriation, restrictions on royalties, dividends and remittances, instabilities of currencies, requirements for governmental

approvals for new ventures and local participation in operations such as local equity ownership and workers' councils. Currency fluctuations between the U.S. dollar and the currencies in which we do business have caused and will continue to cause foreign currency transaction gains and losses, which may be material. While we do not currently believe that we are likely to suffer a material adverse effect on our results of operations in connection with our existing international operations, any of these events could have an adverse effect on our international operations in the future by reducing the demand for our products, affecting the prices at which we can sell our products or otherwise having an adverse effect on our operating performance.

RESEARCH AND PROCESS DEVELOPMENT

During 2005, 2004 and 2003, we incurred \$68.5 million, \$40.0 million and \$35.2 million, respectively, of research and process development expense. During 2005, we also recorded a charge of \$37.0 million in connection with the acquisition of Surface Specialties for the write-off of acquired in-process research and development.

TRADEMARKS AND PATENTS

We have approximately 2,100 patents issued in various countries around the world. We also have trademark applications and registrations for approximately 200 product names. We do not believe that the loss of patent or trademark protection on any one product or process would have a material adverse effect on our company. While the existence of a patent is prima facie evidence of its validity, we cannot assure that any of our patents will not be challenged, nor can we predict the outcome of any challenge.

EMPLOYEES

We employ approximately 7,300 employees of which about one-half are represented by unions. We believe that our relations with employees and unions are generally good.

OPERATING RISKS

Our revenues are largely dependent on the continued operation of our various manufacturing facilities. There are many risks involved in operating chemical manufacturing plants, including the breakdown, failure or substandard performance of equipment, operating errors, natural disasters, the need to comply with directives of, and maintain all necessary permits from, government agencies and potential terrorist attack. Our operations can be adversely affected by labor force shortages or work stoppages and events impeding or increasing the cost of transporting our raw materials and finished products. The occurrence of material operational problems, including but not limited to the above events, may have a material adverse effect on the productivity and profitability of a particular manufacturing facility. With respect to certain facilities, such events could have a material effect on our company as a whole.

Our operations are also subject to various hazards incident to the production of industrial chemicals. These include the use, handling, processing, storage and transportation of certain hazardous materials. Under certain circumstances, these hazards could cause personal injury and loss of life, severe damage to and destruction of property and equipment, environmental damage and suspension of operations. Claims arising from any future catastrophic occurrence at one of our locations may result in Cytec being named as a defendant in lawsuits asserting potentially large claims.

We typically seek to utilize third party insurance. This insurance covers portions of certain of these risks to the extent that coverage is available and can be obtained on terms we believe are economically justifiable.

ENVIRONMENTAL MATTERS

We are subject to various laws and regulations which impose stringent requirements for the control and abatement of pollutants and contaminants and the manufacture, transportation, storage, handling and disposal of hazardous substances, hazardous wastes, pollutants and contaminants.

In particular, under various laws in the U.S. and certain other countries in which we operate, a current or previous owner or operator of a facility may be liable for the removal or remediation of hazardous materials at the facility and nearby areas. Such laws typically impose liability without regard to whether the owner or operator knew of, or was responsible for, the presence of such hazardous materials. In addition, under various laws governing the generation, transportation, treatment, storage or disposal of solid and hazardous wastes, owners and operators of facilities may be liable for removal or remediation, or other corrective action at areas where hazardous materials have been released. The costs of removal, remediation or corrective action may be substantial. The presence of hazardous materials in the environment at any of our facilities, or the failure to abate such materials promptly or properly, may adversely affect our ability to operate such facilities. Certain of these laws also impose liability for investigative, removal and remedial costs on persons who dispose of or arrange for the disposal of hazardous substances at facilities owned or operated by third parties. Liability for such costs is retroactive, strict, and joint and several.

We are required to comply with laws that govern the emission of pollutants into the ground, waters and the atmosphere and with laws that govern the generation, transportation, treatment, storage, and disposal of solid and hazardous wastes. We are also subject to laws that regulate the manufacture, processing, and distribution of chemical substances and mixtures, as well as the disposition of certain hazardous substances. In addition, certain laws govern the abatement, removal, and disposal of asbestos-containing materials and the maintenance of underground storage tanks and equipment which contains or is contaminated by polychlorinated biphenyls. The costs of compliance with such laws and related regulations may be substantial, and regulatory standards tend to evolve towards more stringent requirements. These requirements might, from time to time, make it uneconomic or impossible to continue operating a facility. Non-compliance with such requirements at any of our facilities could result in substantial civil penalties or our inability to operate all or part of the facility, or our ability to sell certain products.

Further discussion of environmental matters is discussed in Note 11 of the Notes to Consolidated Financial Statements which are incorporated by reference herein.

ITEM 1A. RISK FACTORS

Our indebtedness could adversely affect our financial condition, limit our ability to grow and compete and prevent us from fulfilling our obligations under our notes and our other indebtedness.

As of December 31, 2005, we had \$1,311.0 million of debt outstanding, and \$350.0 million of availability under our five year revolving credit agreement. Our indebtedness could adversely affect our financial condition, limit our ability to grow and compete and prevent us from fulfilling our obligations under our notes and our other indebtedness. A discussion of our debt is contained in Note 10 of the Notes to Consolidated Financial Statements which are incorporated herein.

We consider our principal credit agreements ("PCA's") to be our five-year term loan (\$461.2 million outstanding at December 31, 2005) and \$350.0 million five-year revolving credit facilities (zero amount outstanding at December 31, 2005). Our PCA's require us to meet financial ratios, including total consolidated debt to consolidated EBITDA (as defined in the credit agreements) and consolidated EBITDA (as defined in the credit agreements) to interest expense. These restrictions could limit our ability to plan for or react to market conditions or meet extraordinary capital needs and could otherwise restrict our financing activities.

Our ability to comply with the covenants as in effect from time to time, will depend on our future operating performance. If we fail to comply with those covenants and terms, we will be in default. In this case, we would be required to obtain waivers from our lenders in order to maintain compliance. If we were unable to obtain any necessary waivers, the debt under our PCA credit facilities could be accelerated, and become immediately due and payable. In addition, both of our PCA's have a cross default provision whereby amounts outstanding could become due and payable if we default on other debt obligations of at least \$25.0 million.

We could be adversely affected if our debt is downgraded.

Our ability to complete financing of debt securities on satisfactory terms in the future will depend, in part, on the status of our future credit ratings. The current ratings of our senior unsecured long-term indebtedness are BBB- by Standard & Poor's Ratings Service ("S&P") and Baa3 by Moody's Investors Service, Inc. ("Moody's"). Either S&P or Moody's, or both, may downgrade our credit rating at any time, which would make it more difficult to complete financing of debt securities on satisfactory terms and would generally result in increased future borrowing costs and more restrictive covenants and may adversely affect our access to capital. In addition, such a downgrade from current levels would trigger a requirement, under the terms of our PCA's, for specified subsidiaries in the U.S. to guarantee the obligations under our PCA's.

We may encounter difficulties in completing the integration of Surface Specialties and operating the acquired business which could adversely affect our financial performance or our ability to compete successfully in our markets.

Integrating and operating the acquired businesses, and achieving the full benefit and potential efficiencies from such acquisitions, requires substantial management, financial and other resources and may pose several risks, some or all of which could have a material adverse effect on our business, financial condition or results of operations. These risks include:

- difficulties in assimilation of acquired personnel, operations and technologies;
- the need to manage a significantly larger business with operations in different locations around the world;
- diversion of management's attention from the ongoing development of our existing businesses or other business concerns;
- failure to retain key personnel of the acquired business; and

- unforeseen operating difficulties and expenditures.

If we experience any of these difficulties our financial performance and ability to compete successfully in any of our markets could be adversely affected.

Disposition or restructuring charges and goodwill impairment or acquisition intangible impairment or asset impairment charges may unpredictably affect our results of operations in the future.

Management regularly reviews our business portfolio in terms of strategic fit and financial performance and may from time to time dispose of or withdraw certain product lines. Additionally, management regularly reviews the cost effectiveness of its plant sites and/or asset at such sites. Long-lived assets with determinable useful lives are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. We may find it necessary to record disposition, restructuring or asset impairment charges in connection with such reviews. For example, we recorded restructuring charges of \$14.1 million in the fourth quarter of 2005. Such charges could have a material adverse effect on our results of operations in the period in which they are recorded. Another example is an event such as the notice of termination by DSM of our manufacturing joint venture at the end of its term on August 1, 2007. We are reviewing our go-forward options at the end of the venture, and depending on various factors and assumptions such as market demand and raw material costs it could lead to the recording of an impairment charge related to the recoverability of the AMEL long-lived assets. At December 31, 2005, the carrying value of our 50% share of AMEL's long-lived assets was approximately \$15.0 million. Based on our current plans, the estimated future cash flows are sufficient to support the carrying value of these assets. For further discussion of AMEL, see "Building Block Chemicals Segment, Melamine."

We test goodwill and indefinite-lived acquisition intangible assets for impairment on an annual basis

in our fourth fiscal quarter and more often if events occur or circumstances change that would likely reduce the fair value of a reporting unit to an amount below its carrying value. We also test for other possible acquisition intangible impairments if events occur or circumstances change that would likely reduce the fair value of the stated assets.

In connection with the acquisition of Surface Specialties, we recorded goodwill in the amount of \$728.3 million and recorded acquisition intangibles of \$490.4 million at December 31, 2005. In total, we had \$1,012.2 million of goodwill, and acquisition intangibles with a net carrying value of \$491.5 million at December 31, 2005. Future events could cause the impairment of goodwill or acquisition intangibles associated with the Surface Specialties business or any other of our reporting units. Any resulting impairment loss would be a non-cash charge and may have a material adverse impact on our results of operations in any future period in which we record a charge.

Prices and availability of raw materials could adversely affect our operations.

See "Item 1. BUSINESS – Customers and Suppliers."

We face active competition from other companies, which could adversely affect our revenue and financial condition.

See "Item 1. BUSINESS – Competition."

We face numerous risks relating to our international operations that may adversely affect our results of operations.

See "Item 1. BUSINESS – International."

Our production facilities are subject to operating risks that may adversely affect our operations.

See "Item 1. BUSINESS – Operating Risks."

We are subject to significant environmental and product regulatory expenses and risks.

See "Item 1. BUSINESS – Environmental Matters."

Some of our customers' businesses are cyclical and demand by our customers for our products weakens during economic downturns. Loss of significant customers may have an adverse effect on our business.

See "Item 1. BUSINESS – Customers and Suppliers."

We are subject to significant litigation expense and risk.

See "Item 1. LEGAL PROCEEDINGS."

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We operate manufacturing and research facilities in 20 countries. Capital spending for the years ended 2005, 2004 and 2003 was \$105.3 million, \$89.3 million and \$93.8 million, respectively.

Our capital expenditures are intended to provide increased capacity, to improve the efficiency of production units, to improve the quality of our products, to modernize or replace older facilities, or to install equipment for protection of employees, neighboring communities and the environment.

Our manufacturing and research facilities and the segments served by each such facility are as follows:

Facility	Segments Served
Anaheim, California	Cytec Engineered Materials
Antofagasta, Chile	Cytec Performance Chemicals
Atequiza, Mexico	Cytec Performance Chemicals
Avondale (Fortier), Louisiana	Building Block Chemicals
Bassano, Italy	Cytec Surface Specialties
Belmont (Willow Island), West Virginia	Cytec Performance Chemicals
Bogota, Colombia	Cytec Performance Chemicals; Cytec Surface Specialties
Botlek, the Netherlands	Cytec Performance Chemicals; Cytec Surface Specialties; Building Block Chemicals
Bradford, U.K.	Cytec Performance Chemicals
Dijon, France	Cytec Surface Specialties
Drogenbos, Belgium	Cytec Performance Chemicals; Cytec Surface Specialties
Graz, Austria	Cytec Surface Specialties
Greenville, South Carolina	Cytec Engineered Materials
Greenville, Texas	Cytec Engineered Materials
Gumi, Korea	Cytec Performance Chemicals
Hamburg, Germany	Cytec Surface Specialties
Havre de Grace, Maryland	Cytec Engineered Materials
Indian Orchard, Massachusetts	Cytec Performance Chemicals
Kalamazoo, Michigan	Cytec Performance Chemicals; Cytec Surface Specialties
La Llagosta, Spain	Cytec Surface Specialties
Langley, South Carolina	Cytec Performance Chemicals; Cytec Surface Specialties

Facility	Segments Served
Lillestrom, Norway	Cytec Surface Specialties
Longview, Washington	Cytec Performance Chemicals
Mobile, Alabama	Cytec Performance Chemicals
Mount Pleasant, Tennessee	Cytec Performance Chemicals
New Castle, Delaware	Cytec Performance Chemicals
North Augusta, South Carolina	Cytec Surface Specialties
Oestringen, Germany	Cytec Engineered Materials
Olean, New York	Cytec Performance Chemicals
Orange, California	Cytec Engineered Materials
Pampa, Texas	Cytec Surface Specialties
Rayong, Thailand	Cytec Surface Specialties
Rock Hill, South Carolina	Cytec Engineered Materials
San Fernando, Spain	Cytec Surface Specialties
Schoonaarde, Belgium	Cytec Surface Specialties
Seremban, Malaysia	Cytec Surface Specialties
Shanghai, China	Cytec Surface Specialties
Shimonoseki, Japan	Cytec Surface Specialties
Smyrna, Georgia	Cytec Surface Specialties
Stamford, Connecticut	Cytec Performance Chemicals; Cytec Surface Specialties
Suzano, Brazil	Cytec Surface Specialties
Wallingford, Connecticut	Cytec Performance Chemicals; Cytec Surface Specialties
Welland, Canada	Cytec Performance Chemicals
Werndorf, Austria	Cytec Surface Specialties
Wiesbaden, Germany	Cytec Surface Specialties
Winona, Minnesota	Cytec Engineered Materials
Wrexham, U. K.	Cytec Engineered Materials

We own all of the foregoing facilities and their sites except for the land at the Botlek, Indian Orchard, Lillestrom, New Castle, Pampa, Smyrna and Shimonoseki facilities. The land is leased under long-term leases, except for the Indian Orchard, New Castle and Pampa facilities. We are currently negotiating our leases with our landlords for the Indian Orchard and Pampa locations, and reviewing our options regarding these sites. We plan to relocate our New Castle, Delaware operations to the new plant we are building at our Kalamazoo, Michigan facility. We anticipate the relocation to be complete during the last half of 2007. We lease our corporate headquarters in West Paterson, New Jersey, our Cytec Specialty Chemicals headquarters in Brussels, Belgium and our Cytec Engineered Materials headquarters located in Tempe, Arizona.

ITEM 3. LEGAL PROCEEDINGS

We are the subject of numerous lawsuits and claims incidental to the conduct of our or our predecessors' businesses, including lawsuits and claims relating to product liability, personal injury, environmental, contractual, employment and intellectual property matters. Many of the matters relate to the use, handling, processing, storage, transport or disposal of hazardous materials. We believe that the resolution of such lawsuits and claims, including those described below, will not have a material adverse effect on our consolidated financial position, but could be material to our consolidated results of operations and cash flows in any one accounting period. We, in this section, includes certain predecessor entities being indemnified by us.

LEAD PIGMENT

We are among several defendants in approximately 30 cases in the U.S., in which plaintiffs assert claims for personal injury, property damage, and other claims for relief relating to one or more kinds of lead pigment that were used as an ingredient decades ago in paint for use in buildings. The different suits were brought by government entities and/or individual plaintiffs, on behalf of themselves and others. The suits variously seek compensatory and punitive damages and/or injunctive relief, including funds for the cost of monitoring, detecting and removing lead based paint from buildings and for medical monitoring; for personal injuries allegedly caused by ingestion of lead based paint; and plaintiffs' attorneys' fees. We believe that the suits against us are without merit, and we are vigorously defending against all such claims. Accordingly, no loss contingency has been recorded.

In July 2005, the Supreme Court of Wisconsin held in a case in which we were one of several defendants that Wisconsin's risk contribution doctrine applies to bodily injury cases against manufacturers of white lead pigment. Under this

doctrine, manufacturers of white lead pigment may be liable for injuries caused by white lead pigment based on their past market shares unless they can prove they are not responsible for the white lead pigment which caused the injury in question. Seven other courts have previously rejected the applicability of this and similar doctrines to white lead pigment. We settled this case for an immaterial amount. Although similar cases may be filed in Wisconsin, we intend to vigorously defend ourselves if such case(s) are filed based on what we believe to be our non-existent or diminutive market share. Accordingly, we do not believe that our liability, if any, in such cases will be material, either individually or in the aggregate and no loss contingency has been recorded.

We have access to a substantial amount of primary and excess general liability insurance for property damage and believe these policies are available to cover a significant portion of both our defense costs and indemnity costs, if any, for lead pigment related property damage claims. We have agreements with two of our insurers which provide that they will pay for approximately fifty percent (50%) of our defense costs associated with lead pigment related property damage claims and we continue to pursue recovery of our past and future defense costs from additional insurers.

ASBESTOS

We, like many other industrial companies, have been named as one of hundreds of defendants in a number of lawsuits filed in the U.S. by persons alleging bodily injury. The claimants allege exposure to asbestos at facilities that we either formerly or currently own or from products that we formerly manufactured for specialized applications. Most of these cases involve numerous defendants, sometimes as many as several hundred. Historically, most of the closed asbestos claims against us have been dismissed without any indemnity payment by us, and we have no information that this pattern will change.

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The following table presents information about the number of claimants involved in asbestos cases with us:

	Year Ended December 31, 2005	Year Ended December 31, 2004
Number of claimants at beginning of period	27,947	26,955
Number of claimants associated with claims closed during period	(11,949)	(3,540)
Number of claimants associated with claims opened during period	2,113	4,532
Number of claimants at end of period	18,111	27,947

OTHER

In 2006, we were named as a defendant in a series of civil cases alleging violation of antitrust laws relating to the sale of methyl methacrylate, a chemical manufactured and sold by CYRO, and seeking damages arising out of such alleged violations. We sold our interest in CYRO to Degussa in 2005, and in accordance with the terms of the sales agreement, we expect Degussa and CYRO to provide us with full indemnity for any losses and expenses associated with these cases.

In February 2006, a subsidiary of DSM filed a lawsuit against us seeking immediate dissolution of AMEL, the melamine manufacturing joint venture between DSM and Cytec or the appointment of a receiver for the joint venture, the rescission of the services agreement between Cytec and AMEL and compensatory damages. We believe this lawsuit is without merit and we are vigorously defending against all of the claims.

We commenced binding arbitration proceedings against SNF SA ("SNF"), in 2000 to resolve a commercial dispute relating to SNF's failure to

purchase agreed amounts of acrylamide under a long-term agreement. In July, 2004, the arbitrators awarded us damages and interest aggregating approximately 11.0 million euros plus interest on the award at a rate of 7% per annum from July 28, 2004 until paid. We have obtained a court order in France to enforce the award, which order is being appealed by SNF. No gain contingency has been recorded. Subsequent to the arbitration award, SNF filed a complaint alleging criminal violation of French and European Community antitrust laws relating to the contract which was the subject of the arbitration proceedings. We believe that the complaint is without merit.

In addition to liabilities with respect to the specific cases described above, because the production of certain chemicals involves the use, handling, processing, storage, transportation and disposal of hazardous materials, and because certain of our products constitute or contain hazardous materials, we have been subject to claims of injury from direct exposure to such materials and from indirect exposure when such materials are incorporated into other companies' products. There can be no assurance that, as a result of past or future operations, there will not be additional claims of injury by employees or members of the public due to exposure, or alleged exposure, to such materials.

See "Item 1. BUSINESS – Environmental Matters" and Note 11 of the Notes to Consolidated Financial Statements.

**ITEM 4.
SUBMISSION OF MATTERS TO A VOTE
OF SECURITY HOLDERS**

Not applicable.

PART II

**ITEM 5.
MARKET FOR REGISTRANT'S
COMMON EQUITY, RELATED
STOCKHOLDER MATTERS AND
ISSUER PURCHASES OF EQUITY
SECURITIES.**

Our stock is listed on the New York Stock Exchange. On January 31, 2006, there were approximately 8,900 registered holders of our Common Stock.

The high and low closing stock prices and declared dividends per share for each quarter were:

	1Q	2Q	3Q	4Q
2005				
High	\$53.90	\$52.94	\$48.39	\$47.64
Low	\$45.91	\$39.62	\$39.34	\$40.98
Dividends	\$ 0.10	\$ 0.10	\$ 0.10	\$ 0.10
2004				
High	\$38.76	\$45.45	\$49.99	\$51.73
Low	\$32.97	\$35.50	\$44.31	\$44.92
Dividends	\$ 0.10	\$ 0.10	\$ 0.10	\$ 0.10

On February 9, 2006, our Board of Directors declared a quarterly cash dividend of \$0.10 per common share, payable on March 15, 2006 to stockholders of record as of February 27, 2006.

Upon closing of our acquisition of the Surface Specialties business of UCB on February 28, 2005, we issued 5,772,857 shares of our common stock to UCB as part of the consideration. See Note 2 of the Notes to Consolidated Financial Statements. The sale was exempt from registration pursuant to Section 4(2) of the Securities Act of 1933 since no public offering was involved. Also, upon closing, we entered into a stockholder's agreement with UCB which provides for UCB to reduce its stake within five years from the closing date and contains other customary terms and provisions.

See Part III, Item 11. "Executive Compensation" for information relating to our equity compensation plans.

ITEM 6. SELECTED FINANCIAL DATA

FIVE-YEAR SUMMARY

(Dollars in millions, except per share amounts)	2005	2004	2003	2002	2001
Statements of income data:					
Net sales	\$2,925.7	\$1,721.3	\$1,471.8	\$1,346.2	\$1,387.1
Earnings from operations	\$ 160.5 ⁽¹⁾	\$ 167.7 ⁽³⁾	\$ 144.1	\$ 118.4 ⁽⁷⁾	\$ 111.2 ⁽⁹⁾
Earnings before discontinued operations, accounting change, extraordinary item and premium paid to redeem preferred stock	\$ 57.9 ⁽²⁾	\$ 131.0 ⁽⁴⁾	\$ 92.8	\$ 78.7 ⁽⁸⁾	\$ 64.6 ⁽¹⁰⁾
Earnings from discontinued operations, net of taxes	1.2	—	—	—	—
Cumulative effect of accounting change, net of taxes	—	—	(13.6) ⁽⁶⁾	—	—
Extraordinary gain, net of taxes	—	—	—	—	4.9
Premium paid to redeem preferred stock	—	(9.9) ⁽⁵⁾	—	—	—
Net earnings available to common stockholders	\$ 59.1	\$ 121.1	\$ 79.2	\$ 78.7	\$ 69.5
Basic net earnings per common share:					
Net earnings available to common stockholders before accounting change and extraordinary gain	\$ 1.28	\$ 3.06	\$ 2.38	\$ 1.99	\$ 1.61
Earnings from discontinued operations, net of taxes	0.03	—	—	—	—
Cumulative effect of accounting change, net of taxes	—	—	(0.35)	—	—
Extraordinary gain, net of taxes	—	—	—	—	0.12
Net earnings available to common stockholders	\$ 1.31	\$ 3.06	\$ 2.03	\$ 1.99	\$ 1.73
Diluted net earnings per common share:					
Net earnings available to common stockholders before accounting change and extraordinary gain	\$ 1.25	\$ 2.96	\$ 2.31	\$ 1.94	\$ 1.55
Earnings from discontinued operations, net of taxes	0.02	—	—	—	—
Cumulative effect of accounting change, net of taxes	—	—	(0.34)	—	—
Extraordinary gain, net of taxes	—	—	—	—	\$ 0.12
Net earnings available to common stockholders	\$ 1.27	\$ 2.96	\$ 1.97	\$ 1.94	\$ 1.67
Cash dividends declared and paid per common share:	\$ 0.40	\$ 0.40	—	—	—
Balance sheet data:					
Total assets	\$3,810.5	\$2,251.6	\$2,046.4	\$1,785.2	\$1,669.8
Long-term debt	\$1,225.5	\$ 300.1	\$ 416.2	\$ 216.0	\$ 314.7

- (1) Includes a non-deductible charge of \$37.0 for the write-off of acquired in-process research and development, a pre-tax charge of \$20.8 (\$15.4 after tax) resulting from the write-up to fair value of acquired inventory, pre-tax restructuring charges of \$16.8 (\$12.4 after-tax) and pre-tax integration costs of \$0.2 (\$0.1 after-tax).
- (2) In addition to the items in Note (1) above, includes pre-tax charges of \$44.2 (\$28.1 after-tax) related to derivative contracts entered into to hedge currency and interest rate exposure associated with the purchase of Surface Specialties, \$22.0 (\$14.0 after-tax) of interest charges and unamortized put premiums and rate lock agreements related to the redemption of the Mandatory Par Put Remarketed Securities ("MOPPRS") and \$28.3 representing the favorable resolution of several prior year tax matters.
- (3) Includes a pre-tax charge of \$8.0 (\$6.2 after-tax) for various litigation matters.
- (4) In addition to the item in Note (3) above, includes a pre-tax charge of \$6.2 (\$4.8 after-tax) relating to the settlement of several environmental and toxic tort lawsuits, a pre-tax charge of \$2.0 (after-tax \$1.6) relating to the settlement of disputed matters with the former holder of our Series C Preferred Stock, a tax credit of \$2.4 resulting from the favorable outcome of a completed international tax audit and a pre-tax gain of \$26.8 (after-tax \$17.1) resulting from derivative transactions related to the acquisition of Surface Specialties.
- (5) Represents a charge to net earnings available to common stockholders resulting from the redemption of our Series C Preferred Stock.
- (6) Represents the cumulative effect of adopting Statement of Financial Accounting Standards ("SFAS") No. 143. Pre-tax expenses resulting from SFAS No. 143 included in Earnings from Operations were \$1.8 in 2003. Had this accounting policy been in effect in prior years, additional pre-tax expenses of \$1.7 in 2002 and \$1.6 in 2001 would have been recognized in the determination of earnings from operations.
- (7) Includes net restructuring pre-tax charges of \$13.7 (\$9.2 after-tax) and a pre-tax charge of \$1.7 (\$1.1 after-tax) for costs associated with obtaining a tax refund related to the prior years' research and development tax credit.
- (8) In addition to the items in Note (7) above, includes restructuring pre-tax charges of \$0.4 (\$0.2 after-tax) included in equity in earnings of associated companies, \$2.0 of pre-tax interest income (after tax \$1.3) related to the research and development tax credit, and a \$6.0 reduction in income tax expense related to a refund associated with prior years' research and development tax credits.
- (9) Includes a restructuring pre-tax charge of \$5.4 (\$3.5 after-tax) and pre-tax goodwill amortization of \$9.7 (\$6.3 after-tax) that is no longer amortized under SFAS No. 142, "Goodwill and Other Intangible Assets."
- (10) In addition to the restructuring charge in note (9) above, includes a restructuring pre-tax charge of \$2.3 (\$1.5 after-tax) included in earnings of associated companies.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with the Consolidated Financial Statements and Notes to Consolidated Financial Statements. It is assumed that the reader is familiar with the description of our business and risk factors contained in Part I of this report. Currency amounts are in millions, except per share amounts. Percentages are approximate.

GENERAL

We are a global specialty chemicals and materials company which sells our products to diverse major markets for aerospace, adhesives, automotive and industrial coatings, chemical intermediates, inks, mining, plastics and water treatment. Sales price and volume by region and the impact of exchange rates on our reporting segments are important measures that are analyzed by management.

In the course of our ongoing operations, a number of strategic product line acquisitions and dispositions have been made. The results of operations of the acquired businesses have been included in our consolidated results from the dates of the respective acquisitions. On February 28, 2005, we acquired the Surface Specialties business of UCB in a transaction valued at \$1,799.7. After adjusting for a final working capital adjustment of \$25.4 and transaction costs incurred of \$14.9, the acquisition was valued at \$1,789.2. A further discussion of acquisitions and dispositions can be found in Note 2 to the Notes to the Consolidated Financial Statements contained herein.

We also report net sales in four geographic regions: North America, Latin America, Asia/Pacific and Europe/Middle East/Africa. The destination of the sale determines the region under which it is reported consistent with management's view of the business. North America consists of the United States and Canada. Latin America includes Mexico, Central America, South America and the Caribbean Islands. Asia/Pacific is comprised of Asia, Australia and the islands of the South Pacific Rim.

Raw material cost changes year on year are an important factor in profitability especially in years of high volatility. Oil and natural gas costs are significantly higher than the year ago period and many of our raw materials are derived from these two commodities. Discussion of the year to year impact of raw materials and energy is provided in our segment discussion. In addition, higher global demand levels and, occasionally, operating difficulties at suppliers, have limited the availability of certain of our raw materials. Hurricane activity in the US Gulf region led to further increases in the cost of natural gas and oil-related raw materials.

RESULTS OF OPERATIONS

The following table sets forth the percentage relationship that certain items in our Consolidated Statements of Income bear to net sales:

Years Ended December 31,	2005	2004	2003
Net sales	100.0%	100.0%	100.0%
Manufacturing cost of sales	79.1	75.7	75.5
Gross profit	20.9	24.3	24.5
Selling and technical services	7.3	8.1	8.6
Research and process development	3.6	2.3	2.4
Administrative and general	3.5	3.8	3.3
Amortization of acquisition intangibles	1.0	0.3	0.3
Earnings from operations	5.5	9.8	9.9
Net earnings available to common stockholders	2.0	7.0	5.4

NET SALES BY SEGMENT AND GEOGRAPHIC AREA

Net Sales	North America	Latin America	Asia/Pacific	Europe/Middle East/Africa	Total
2005					
Cytec Performance Chemicals	\$ 340.8	\$126.8	\$118.5	\$ 269.7	\$ 855.8
Cytec Surface Specialties	329.6	50.7	202.9	660.9	1,244.1
Cytec Engineered Materials	349.2	1.5	30.0	160.9	541.6
Building Block Chemicals	149.2	4.9	50.3	79.8	284.2
Total	\$1,168.8	\$183.9	\$401.7	\$1,171.3	\$2,925.7
2004					
Cytec Performance Chemicals	\$ 293.8	\$104.0	\$106.7	\$ 208.2	\$ 712.7
Cytec Surface Specialties	122.4	16.2	56.7	65.7	261.0
Cytec Engineered Materials	322.4	1.7	21.5	141.4	487.0
Building Block Chemicals	126.6	3.3	77.0	53.7	260.6
Total	\$ 865.2	\$125.2	\$261.9	\$ 469.0	\$1,721.3
2003					
Cytec Performance Chemicals	\$ 272.5	\$ 77.9	\$101.3	\$ 171.9	\$ 623.6
Cytec Surface Specialties	120.5	13.4	36.5	58.0	228.4
Cytec Engineered Materials	292.3	1.6	15.5	99.3	408.7
Building Block Chemicals	88.9	4.0	58.0	60.2	211.1
Total	\$ 774.2	\$ 96.9	\$211.3	\$ 389.4	\$1,471.8

Net sales in the United States were \$1,095.3, \$802.4 and \$719.7 for 2005, 2004 and 2003, respectively. International net sales were \$1,830.4, \$918.9, and \$752.1, or 63%, 53% and 51% of total net sales, for 2005, 2004 and 2003, respectively.

For more information on our segments, refer to Note 17 of the Notes to Consolidated Financial Statements and further discussions in "Segment Results," below.

YEAR ENDED DECEMBER 31, 2005, COMPARED WITH YEAR ENDED DECEMBER 31, 2004

CONSOLIDATED RESULTS

Net sales for 2005 were \$2,925.7 compared with \$1,721.3 for 2004, up 70% of which 62% was due to the inclusion of sales from Surface Specialties which was acquired on February 28, 2005, selling prices increased 6%, exchange rates increased sales 1% and selling volumes were up 1%. Cytec Performance Chemicals experienced a net increase in sales which resulted primarily from the

addition of sales of the acquired pressure sensitive adhesives and polyurethanes product lines of Surface Specialties as well as from selling price increases. Cytec Surface Specialties experienced a net increase in sales which resulted primarily from the addition of sales related to the remainder of the acquired product lines of Surface Specialties. Cytec Engineered Materials sales increase was primarily volume related, primarily from increased sales to the large commercial transport and commercial rotorcraft sectors. Building Block Chemicals sales increased from higher selling prices, while volumes decreased. Net sales and operating results for the Building Blocks segment were significantly impacted by the effects of hurricanes Katrina and Rita in the US gulf coast.

For a detailed discussion on revenues refer to the Segment Results section below.

Manufacturing cost of sales was \$2,313.7 compared with \$1,303.1 during 2004. This increase was primarily attributable to the following items: the inclusion of the acquired Surface Specialties business; higher raw material and energy costs of

\$98.4; a charge of \$20.8 representing the excess of the fair value of the finished goods inventory of the acquired business over normal manufacturing cost and the direct impact from the hurricanes of \$6.3 for maintenance and repair costs, extra labor and related expenses, energy and start up costs. Also included was approximately \$5.0 of employee severance costs related to a restructuring that occurred during the second half of 2005.

Pension expense increased \$15.7 principally as a result of additional plans acquired upon acquisition and to a lesser extent, the lowering of the discount rate in the U. S. by 0.50% to reflect current market rates on fixed income securities. Pension expense is primarily reported in manufacturing cost of sales.

Selling and technical services was \$213.6 versus \$139.8 in the prior year. This increase was primarily attributable to the following items: the inclusion of the acquired Surface Specialties business; \$3.5 of employee severance costs; \$1.2 of unfavorable exchange rate changes; and \$4.4 from increased investments in people and qualification work on a number of new aircraft platforms for our customers in the Cytec Engineered Materials segment.

Research and process development was \$68.5 versus \$40.0 in the prior year. This increase was primarily attributable to the inclusion of the acquired Surface Specialties business and \$0.8 related to restructuring charges.

The write-off of acquired in-process research and development of \$37.0 was the result of the Surface Specialties acquisition.

Administrative and general expenses were \$102.1 versus \$65.1 in the prior year. This increase was primarily attributable to the following items: the inclusion of the acquired Surface Specialties business; a charge of \$2.4 related to the settlement of a litigation matter and employee severance costs of \$7.3. Included in administrative expenses for the prior year period is a charge of \$8.0 related to the settlement of a federal carbon fiber class action lawsuit and several other minor litigation matters.

Amortization of acquisition intangibles was \$30.3 versus \$5.6 in the prior year due to the amortization of intangibles related to the acquired Surface Specialties business.

Other income (expense), net was expense of \$44.9 compared with income of \$16.9 in the prior year. We entered into derivative contracts to economically hedge currency and interest rate exposures associated with the Surface Specialties acquisition. These contracts were settled following completion of the acquisition and resulted in a loss of \$19.2 during 2005. The foreign currency contracts have matured. In anticipation of the long-term debt that was subsequently issued in October, 2005 to refinance debt, we also entered into interest rate derivatives which resulted in the recognition of a loss of \$25.0 in 2005. Also included in 2005 was a charge of \$4.4 for a settlement to resolve a dispute over an environmental matter. Included in 2004 results was a net gain of \$26.8 related to derivative contracts entered into during the fourth quarter to economically hedge currency and interest rate exposure associated with the pending acquisition of Surface Specialties. Also included in 2004 results were charges of \$6.1 for settlement of several environmental remediation and toxic tort lawsuits and a charge of \$2.0 related to the settlement of a series of disputed matters with the holder of our Series C Preferred Stock ("Series C Stock").

Equity in earnings of associated companies was \$7.9 versus \$5.2 in the prior year. The increase was primarily due to an increase in earnings by CYRO even though the 2005 results include only the five months of results. We sold our 50% ownership stake in CYRO on June 1, 2005.

Interest expense, net was \$80.0 compared with \$17.4 in the prior year. The increase resulted from higher outstanding debt balances incurred in conjunction with our acquisition of Surface Specialties and \$22.0 of interest charges and unamortized put premiums and rate lock agreements related to the optional redemption of our Mandatory Par Put Remarketed Securities ("MOPPRS") in 2005.

Our 2005 effective tax rate on income from continuing operations was a tax benefit of 33%.

Our effective tax rate for continuing operations was favorably impacted by a reduction in income tax expense of \$12.2 related to a partial resolution of a tax audit in Norway with respect to prior year tax returns and a reduction in income tax expense of \$16.2 recorded related to final approval of the Internal Revenue Service's examination of our tax returns for the years 1999 through 2001. Also favorably impacting the rate were the losses of \$44.2 incurred in the U.S. on interest rate and currency derivatives entered into in connection with Surface Specialties acquisition and the \$22.0 charge pertaining to the optional redemption of the MOPPRS. The tax benefit on these losses was recorded at 36.5%. Unfavorably impacting the 2005 tax rate was a charge of \$37.0 for the write-off of in-process research and development expenses related to the Surface Specialties acquisition for which no tax benefit was recorded. Excluding these items, our underlying 2005 annual effective tax rate would have been 26%. The comparable effective tax rate in 2004 was 24%, which excludes acquisition related net currency and interest rate hedge gains. The increase in the underlying annual effective tax rate versus last year was primarily attributable to the addition of earnings from acquired Surface Specialties entities in countries with higher tax rates than in countries for heritage Cytec.

Earnings from discontinued operations were \$1.2 in 2005, net of taxes of \$0.8 and reflect the results of Surface Specialties amino resins ("SSAR") product line for the six months ended August 31, 2005, the date on which we divested SSAR.

During 2004, we redeemed our Series C Stock, which had a liquidation value of \$0.1, for \$10.0 in cash. The resulting charge to net earnings available to common stockholders of \$9.9 was recorded as a premium paid to redeem preferred stock during 2004.

Net earnings available to common stockholders for 2005 were \$59.1 (\$1.27 per diluted share) compared with \$121.1 (\$2.96 per diluted share). Included in the full year ended December 31, 2005 were purchase accounting related charges of \$20.8 pre-tax (after-tax \$15.2, or \$0.33 per diluted share), related to acquired inventories from Surface Specialties being recorded at fair value

which exceeded normal manufacturing cost, and \$37.0 or \$0.80 per diluted share related to the write-off of in-process research and development costs of Surface Specialties, a pre-tax charge of \$44.2 million (after tax \$28.1 or \$0.61 per diluted share) related to currency and interest rate derivative transactions associated with the Surface Specialties acquisition, a pre-tax charge of \$2.4 (after tax \$1.8 or \$0.04 per diluted share) related to an anticipated settlement of a certain litigation matter, a pre-tax charge of \$22.0 (after-tax \$14.0 or \$0.30 per diluted share) related to the optional redemption of our MOPPRS prior to their maturity, an income tax benefit of \$28.4, or \$0.61 per diluted share, reflecting favorable resolution of tax audits with respect to prior year tax returns, employee restructuring costs of \$16.8 (after tax net \$12.4 or \$0.27 per diluted share), integration costs related to the acquired business of pre-tax \$0.2 (after tax \$0.1) and a \$4.4 settlement to resolve a dispute over an environmental matter (after tax \$3.2 or \$0.07 per diluted share).

SEGMENT RESULTS (SALES TO EXTERNAL CUSTOMERS)

Year-to-year comparisons and analyses of changes in net sales by product line segment and region are set forth below and reflect the new organizational and reporting structure of our reportable segments for all periods presented.

Cytec Performance Chemicals

	2005	2004	Total % Change	Price	% Change Due to		
					Acquisition/ Volume/ Mix	Currency	
North America	\$340.8	\$293.8	16%	9%	7%	0%	
Latin America	126.8	104.0	22%	4%	12%	6%	
Asia/Pacific	118.5	106.7	11%	4%	6%	1%	
Europe/ Middle East/ Africa	269.7	208.2	30%	6%	23%	1%	
Total	\$855.8	\$712.7	20%	7%	12%	1%	

Overall selling volume increased 12%, with the acquisition accounting for an increase of 14%, partly offset by a decrease in base selling volumes of 2%,

primarily due to the sluggish demand in North American and Europe as well as our decision to give up low margin business. On a regional basis, sales volume in North America increased 7% with acquisitions accounting for 11%. The decrease in base volumes is primarily attributable to the water treatment and polymer additive product lines which were impacted by decisions to give up low margin business and reduced demand. Sales volume in Europe/Middle East/Africa increased 23%, with acquisitions accounting for 24%, partly offset by a decrease in base selling volume of 1% principally in the polymer additives product line. Sales volumes in Asia were up 6% with the acquisition accounting for 12%. The decrease in base volumes was principally in the polymer additives product line due to decisions to give up low margin business. Sales volumes in Latin America increased 12% primarily due to improved demand for mining chemicals for copper mining applications. Selling prices increased as a result of implementation of price increase initiatives to cover significantly higher raw material and energy costs.

Earnings from operations were \$56.6, or 7% of sales, compared with \$57.5 or 8% of sales in 2004. Earnings declined slightly as price increases of \$47.1 and the net favorable impact of exchange rate changes were offset by higher raw material and energy costs of \$35.8, a write-off of acquired in-process research and development costs of \$6.9, a charge of \$2.5 for the excess of the fair value of the finished goods inventory of the acquired business over normal manufacturing cost and lower selling volumes compounded by reduced production levels at certain facilities in response to lower demand levels.

Cytec Surface Specialties

	2005	2004	Total % Change	% Change Due to		
				Price	Acqui- sition/ Volume	Currency
North America \$	329.6	\$122.4	169%	3%	166%	0%
Latin America	50.7	16.2	213%	-1%	210%	4%
Asia/Pacific	202.9	56.7	258%	1%	256%	1%
Europe/ Middle East/ Africa	660.9	65.7	906%	2%	903%	1%
Total	\$1,244.1	\$261.0	377%	2%	374%	1%

Selling volumes increased 374% as a result of the acquisition with base volumes decreasing slightly

for heritage businesses. In North America base business declined 5% due to weak demand and Latin America, all of the volume increase is acquisition related. In Asia/Pacific, base business grew 8% while in Europe/Middle East/Africa, base volumes were down 2% due to weak demand.

Earnings from operations were \$22.0, or 2% of sales, compared with earnings from operations of \$28.7 or 11% of sales in 2004. The decrease in earnings is primarily attributable to the following factors: the write-off of acquired in-process research and development costs of \$30.1; a charge of \$18.3 for the excess of fair value of the finished goods inventory of the acquired business over normal manufacturing costs; a decline in base business selling volumes which decreased earnings by \$6.5, and; higher raw material and energy costs of \$12.5 which were only partially recovered by selling price increases of \$4.8. Partially offsetting the above were the earnings of the acquired business of \$57.8 (excluding the acquired research and development and inventory charges referred to above) and the net favorable impact of exchange rate changes.

Cytec Engineered Materials

	2005	2004	Total % Change	% Change Due to		
				Price	Volume/ Mix	Currency
North America	\$349.2	\$322.4	8%	1%	7%	0%
Latin America ⁽¹⁾	1.5	1.7	-	-	-	-
Asia/Pacific	30.0	21.5	40%	3%	37%	0%
Europe/ Middle East/Africa	160.9	141.4	14%	3%	11%	0%
Total	\$541.6	\$487.0	11%	2%	9%	0%

⁽¹⁾ Due to the level of sales in this geographic region, percentage comparisons are not meaningful.

Overall selling volumes increased 9%. Increased sales to the Europe/Middle East/Africa, North America and Asia/Pacific regions primarily related to increased volumes to the large commercial transport and commercial rotorcraft sectors primarily due to increased build rates and new business.

Earnings from operations were \$103.0, or 19% of sales, compared with \$83.4, or 17% of sales, in 2004. The increase was primarily attributable to increased earnings of \$30.5 from higher selling volumes and price increases of \$8.3 partially offset by higher raw material and energy costs of \$5.6,

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manufacturing difficulties in Europe and increased in technical, commercial and research of \$5.2 principally to support future growth initiatives.

Building Block Chemicals

	2005	2004	Total % Change	% Change Due to		
				Price	Volume/ Mix	Currency
North America	\$149.2	\$126.6	18%	18%	0%	0%
Latin America ⁽¹⁾	4.9	3.3	—	—	—	—
Asia/Pacific	50.3	77.0	—35%	10%	—45%	0%
Europe/ Middle East/ Africa	79.8	53.7	49%	21%	28%	0%
Total	\$284.2	\$260.6	9%	16%	—7%	0%

⁽¹⁾ Due to the level of sales in this geographic region, percentage comparisons are not meaningful.

Sales were higher overall due to higher selling prices, primarily for acrylonitrile, which were in line with the increase in raw material costs. Selling volumes decreased 7% overall. Selling volumes to the Asia/Pacific region decreased due to sluggish demand for acrylonitrile in light of higher selling prices but were partially offset by increased volumes to the Europe/Middle East/Africa region where local production outages increased demand for imported acrylonitrile. Selling volumes in North America were impacted by reduced industrial demand and the hurricanes in the US Gulf region.

Earnings from operations were \$5.7, or 2% of sales, compared with \$15.6, or 6% of sales, in 2004. The decrease in earnings reflects the impact from the hurricanes of about \$6.3 related to maintenance and repair costs, extra labor and related expenses, energy and start up costs and the related lower production levels which reduced fixed cost absorption by approximately \$3.9. Higher selling prices of \$41.0 mostly offset increased raw material and energy costs of \$44.6.

YEAR ENDED DECEMBER 31, 2004 COMPARED WITH YEAR ENDED DECEMBER 31, 2003

CONSOLIDATED RESULTS

Net sales for 2004 were \$1,721.3 compared with \$1,471.8 during 2003. All segments reported

increased sales. In the two specialty chemicals segments sales increased primarily due to increased selling volumes, the acquisitions completed in the second half of 2003 and favorable exchange rates. The Cytec Engineered Materials segment sales increase was primarily volume related and all product lines participated. The Building Block Chemicals segment sales increased principally due to higher selling prices which were driven by higher raw material and energy costs offset somewhat by a decrease in sales volumes of acrylonitrile and acrylamide.

For a detailed discussion on sales refer to the Segment Results section below.

Manufacturing cost of sales was \$1,303.1 compared with \$1,111.9 during 2003. Cost of sales was primarily impacted by higher raw material and energy costs of \$69.0. Gross margin percent however, decreased by only 0.2% as the higher raw material and energy costs were offset by increased selling prices of \$42.1, the net impact of exchange rates on operations outside of the United States of \$35.1, the fixed cost leverage from the increased production levels and a favorable product mix.

Pension expense increased \$5.1 principally as a result of our lowering the discount rate in the U. S. by 0.5% to reflect current market rates on fixed income securities and by the 2003 acquisitions which increased pension expense by \$0.3. Pension expense is primarily reported in manufacturing cost of sales. Refer to "Critical Accounting Policies, Retirement Plans" for further discussion on how changes in discount rates and return on asset assumptions can impact annual expense.

Selling and technical services was \$139.8 in 2004 versus \$126.9 in the prior year due to ongoing costs of the businesses in the Specialty Chemical segments acquired in the second half of 2003, the impact of exchange rate changes on operations outside of the United States of \$4.2 and higher costs in the Cytec Engineered Materials segment of \$2.0 where we are investing in personnel, product qualifications and commercialization of new products for our growth initiatives.

Research and process development was \$40.0 versus \$35.2 in the prior year. This increase was

primarily the result of ongoing costs of the acquired businesses of the Specialty Chemical segments completed in the second half of 2003, costs associated with the start up of the newly renovated specialty chemicals technology center and higher costs in the Cytec Engineered Materials segment where we continue to invest for a number of future opportunities.

Administrative and general expenses were \$65.1 versus \$49.7 in the prior year. Included in 2004 is a charge of \$8.0 related to the settlement of the federal carbon fiber class action lawsuit and several other minor litigation matters. Also contributing to the increase were ongoing costs of the businesses of the Specialty Chemical segments acquired in the second half of 2003 of approximately \$1.3, an increase in deferred compensation expense of \$2.6 due to the increase in our stock price versus the year ago period and the impact of exchange rate changes on operations outside of the U.S. of \$1.1. Additionally, we incurred \$2.0 in third party expenses related to implementing accounting and disclosure control procedures as required by the Sarbanes-Oxley Act of 2002.

Other income, net was \$16.9 compared with a loss of \$5.7 in the prior year. Included in 2004 results was a net gain of \$26.8 related to derivative contracts entered into during the fourth quarter to economically hedge currency and interest rate exposure associated with the pending acquisition of Surface Specialties. We entered into foreign currency contracts to offset the impact of potential dollar to euro exchange rate fluctuations on the acquisition cost in dollars and this resulted in a gain of \$33.3. In anticipation of future long-term debt that would be issued to partially finance the acquisition, we also entered into interest rate hedges which resulted in the recognition of a loss of \$6.5. Also included in other income, net are charges of \$6.2 for settlement of several environmental remediation and toxic tort lawsuits and a charge of \$2.0 related to the settlement of a series of disputed matters with Wyeth, partially offset by a gain of \$2.0 related to the sale in 1999 of our share of a methanol joint venture whereby we received additional proceeds because the market price of methanol stayed above an agreed upon index over a predetermined period of time.

We also recorded \$3.0 in other income, net, of which \$1.0 has been received, that relates to insurance recoveries and expected recoveries from our insurers of lead-related defense costs which had been previously expensed. Lead-related defense costs recognized during 2004 amounted to \$2.5. The prior year loss of \$5.7 primarily resulted from the recognition of currency losses whereby certain international subsidiaries held dollar denominated assets while the U.S. dollar weakened.

Equity in earnings of associated companies was \$5.2 versus \$7.2 in the prior year. Earnings from CYRO, our 50% owned acrylic plastics joint venture, remained flat as compared with the prior year as increased sales volumes and selling prices offset higher raw material costs. In addition, results for 2003 included earnings of \$1.8 from our former 50% owned Mitsui-Cytec joint venture. Refer to Notes 2 and 6 of the Notes to Consolidated Financial Statements.

Interest expense, net was \$17.4 compared with \$16.2 in the prior year. The increase resulted primarily from a higher outstanding weighted-average debt balance during 2004.

Our effective tax rate in 2004 was 24.0% compared with 28.3% in 2003. This reduction reflects our continued earnings growth in lower tax jurisdictions and, to a lesser extent, a favorable international tax ruling received in the first quarter of 2004. During the second quarter of 2004, we recorded a reduction of our tax liabilities due to the completion of several years of tax audits in an international tax jurisdiction that resulted in a reduction of \$2.4 to our income tax provision. These reductions were partially offset by the derivative net gain noted above which was taxed at the higher incremental U.S. rate.

Net earnings available to common stockholders for 2004 were \$121.1 (\$2.96 per diluted share). Net earnings available to common stockholders for 2004 included a charge of \$9.9 (\$0.24 per diluted share) as a result of the redemption of our Series C Stock. Our Series C Stock was originally issued in 1993 in conjunction with our spin-off from American Cyanamid Company ("Cyanamid"). Wyeth became beneficial owner of Series C Stock following its

acquisition of Cyanamid in 1994. Net earnings available to common stockholders for 2003 were \$79.2 (\$1.97 per diluted share). Included in 2003 results is an after-tax, non-cash charge of \$13.6 (\$0.34 per diluted share) reported as a cumulative effect of accounting change related to the adoption of SFAS No. 143, "Accounting for Asset Retirement Obligations" which became effective January 1, 2003.

SEGMENT RESULTS (SALES TO EXTERNAL CUSTOMERS)

Year-to-year comparisons and analyses of changes in net sales by product line segment and region are set forth below.

Cytec Performance Chemicals

	2004	2003	Total % Change	% Change Due to		
				Price	Volume/ Mix	Currency
North						
America	\$293.8	\$272.5	8%	1%	7%	0%
Latin America	104.0	77.9	34%	-2%	33%	3%
Asia/Pacific	106.7	101.3	5%	0%	3%	2%
Europe/ Middle East/Africa	208.2	171.9	21%	0%	13%	8%
Total	\$712.7	\$623.6	14%	0%	11%	3%

Overall sales improved 14% with acquisitions accounting for 6%. The 5% increase in base selling volumes was attributable to increased sales across all product lines, mining chemicals and water treatment chemicals. On a regional basis, sales volumes in Latin America increased 33% with acquisitions accounting for 11% and the remainder of the increase primarily due to improved demand for mining chemicals from copper mining applications. Sales volumes were up 13% in Europe/Middle East/Africa with acquisitions accounting for 4% and the remainder of the increase primarily due to increased demand for water treatment chemicals from full service providers and phosphine applications.

Earnings from operations were \$57.5, or 8% of sales, compared with \$35.7 or 6% of sales in 2003. The increase in earnings was primarily attributable to increased selling volumes, primarily due to acquisitions during the second half of 2003, and the impact of exchange rate changes of \$20.3 partly offset by increased raw material and energy costs of \$8.7.

Cytec Surface Specialties

	2004	2003	Total % Change	% Change Due to		
				Price	Volume/ Mix	Currency
North						
America	\$122.4	\$120.5	2%	-1%	3%	0%
Latin America	16.2	13.4	21%	0%	20%	1%
Asia/Pacific	56.7	36.5	55%	-2%	55%	2%
Europe/ Middle East/Africa	65.7	58.0	13%	1%	3%	9%
Total	\$261.0	\$228.4	14%	-1%	12%	3%

Overall selling volumes increased 12% with acquisitions accounting for 7%. Base selling volumes increased for all product lines as a result of improved demand and new business. On a regional basis, Asia/Pacific sales volumes increased 55% with acquisitions accounting for 45%. Latin America sales volumes increased 20% and resulted from increased demand for coatings. Europe/Middle East/Africa sales were up 13% due to the favorable impact of exchange rate changes and increased demand primarily for coatings chemicals.

Earnings from operations were \$28.7, or 11% of sales, compared with \$23.7, or 10% of sales, in 2003. The favorable impact from acquisitions, higher base sales volumes, improved manufacturing operations and net favorable exchange rate changes of \$6.2 more than offset the effect of higher raw material and energy costs of \$3.4.

Cytec Engineered Materials

	2004	2003	Total % Change	% Change Due to		
				Price	Volume/ Mix	Currency
North						
America	\$322.4	\$292.3	10%	0%	10%	0%
Latin America	1.7	1.6	-	-	-	-
Asia/Pacific	21.5	15.5	39%	-1%	40%	0%
Europe/ Middle East/Africa	141.4	99.3	42%	-3%	40%	5%
Total	\$487.0	\$408.7	19%	-1%	19%	1%

(1) Due to the level of sales in this geographic region, percentage comparisons are not meaningful.

Overall selling volumes increased 19% with the increases coming from large commercial aircraft, regional and business jets and rotorcraft, military and high performance automotive sectors. On a regional basis, the 10% increase in North America sales volumes represented increased sales primarily to large commercial aircraft, military, business and regional jet and rotorcraft applications. Europe/Middle East/Africa sales volumes increased 40% principally due to increased sales to large commercial aircraft and high performance automotive applications as well as to business and regional jet and rotorcraft applications. Asia/Pacific sales volumes increased 40% principally due to increased sales for large commercial aircraft and regional and business jets. The overall decrease in average selling price was primarily due to increased volume rebates.

Earnings from operations were \$83.4, or 17% of sales, compared with \$66.0, or 16% of sales, in 2003. Higher earnings were principally due to the increase in selling volumes partly offset by increased manufacturing and commercial costs to service the higher demand levels and growth opportunities of this segment.

Building Block Chemicals

	2004	2003	Total % Change	% Change Due to		
				Price	Volume/ Mix	Currency
North America	\$126.6	\$88.9	43%	25%	18%	0%
Latin America ⁽¹⁾	3.3	4.0	—	—	—	—
Asia/Pacific	77.0	58.0	33%	35%	-2%	0%
Europe/ Middle East/Africa	53.7	60.2	-11%	6%	-23%	6%
Total	\$260.6	\$211.1	23%	22%	-1%	2%

⁽¹⁾ Due to the level of sales in this geographic region, percentage comparisons are not meaningful.

Global sales volumes declined slightly due in part to decreased acrylonitrile production as a result of reduced propylene (the key raw material for acrylonitrile) availability during the first quarter as well as a scheduled plant maintenance shutdown during May, 2004. North America selling volumes were up 18% with the majority due to increased acrylonitrile and sulfuric acid business. Europe/Middle East/Africa volumes decreased as 2003

reflected opportunistic sales in this region resulting from more favorable spot selling prices versus the Asia/Pacific region. North America and Asia/Pacific selling prices were up primarily reflecting partial recovery of higher raw material and energy costs.

Earnings from operations were \$15.6, or 6% of sales, compared with \$20.7, or 10% of sales, in 2003. The decrease in earnings was primarily due to the decrease in volume and increased raw material and energy costs of \$48.0, which were not fully offset by price increases of \$46.0.

LIQUIDITY AND FINANCIAL CONDITION

At December 31, 2005, our cash balance was \$68.6 compared with \$323.8 at year end 2004. This decrease was primarily attributable to the use of cash to pay for a portion of the purchase price of Surface Specialties and to reduce debt, partially offset by cash generated from operations and sales of assets and discontinued operations.

Cash flows provided by operating activities were \$232.4 compared with \$167.4 for 2004. Significant one-time non-cash acquisition related charges for the write-off of acquired in-process research and development and amortization of acquired finished goods step up to fair value negatively impacted earnings but did not impact operating cash flow. The acquisition also resulted in significant increases in non-cash depreciation and amortization expenses. Other receivables reflect cash flows of \$31.7 primarily due to the reimbursement from UCB for the payment of \$19.4 of pre-acquisition tax liabilities for which we have been indemnified. Income taxes payable decreased \$42.6 reflecting payment of the pre-acquisition income tax liabilities of \$19.9 and the favorable resolution of several prior year tax matters which amounted to a reduction of income taxes payable of \$28.3. Inventories decreased \$9.5 reflecting efforts to optimize inventory levels. Other assets decreased \$21.5 primarily from the cash realization of gains on acquisition related derivative instruments that were recognized in 2004. Accrued expenses decreased \$19.3. Included in this are payments against acquisition related accruals of \$7.9, payments against prior year incentive accruals higher than the current year accrual of

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\$10.9, payment of legal settlements of \$10.4 of which \$8.0 was accrued in 2004 and a payment of \$7.7 for losses on interest rate derivative instruments that were recognized in 2004. Partially offsetting these payments were net accruals for restructuring of \$10.5.

Cash flows used in investing activities were \$1,385.2 for 2005 compared with \$84.1 for 2004. This increase was primarily attributable to the acquisition of Surface Specialties. On February 28, 2005, we acquired Surface Specialties for cash and stock valued at \$1,799.7, of which \$1,508.9 (euro 1,138.5 at 1.325 U.S. dollar per euro) was paid in cash and the balance was paid in 5,772,857 shares of Cytec common stock (\$290.8 at \$50.37 per Cytec share). During September 2005, we received \$25.4 from UCB representing an adjustment to the purchase price for finalization of working capital amounts as of the acquisition date. After considering the final working capital adjustment and transaction costs of \$14.9, the acquisition is valued at \$1,789.2 of which \$1,493.8 was paid in cash in 2005 and \$4.6 was paid in cash in 2004. Assets acquired includes \$34.7 in cash, so the net cash used for the acquisition in 2005 totaled \$1,459.1. The increase in cash flows used in investing activities was partly offset by the sale of assets of \$105.5 of which \$100.4 was received from the sale of our 50% investment in CYRO. Also, \$74.3 was received from the sale of SSAR, which was classified as a discontinued operation. Capital spending for 2005 was \$105.3, up from \$89.3 primarily due to spending at acquired sites.

Net cash flows provided by financing activities were \$906.4 in 2005 compared with net cash flows used in financing activities of \$20.6 during 2004. This increase primarily resulted from borrowings in connection with the acquisition of Surface Specialties.

We financed the cash component with \$600.0 under an unsecured 364-day credit facility, \$725.0 under an unsecured five-year term loan and the remaining \$184.0 was paid from existing cash. During October 2005, we sold \$250.0 principal amount of 5.5% Notes due October 1, 2010 and \$250.0 principal amount of 6.0% Notes due October 1, 2015 (collectively, the "Notes"). The

Notes were offered under our \$600.0 shelf registration statement. We received \$495.1 in net proceeds from the offering after deducting the underwriting discount and other offering expenses which we used to repay all amounts outstanding under our unsecured 364-day facility and our revolving credit facility which were \$417.5 and \$66.2, respectively. The 364-day facility is now terminated. The Notes will pay interest on each April 1 and October 1, commencing on April 1, 2006 through their respective due dates. The Notes are unsecured and subordinated to any secured indebtedness of Cytec. The Notes may be redeemed, in whole or in part, at our option at any time subject to a prepayment adjustment. Our bank agreements contain certain customary covenants with which we are in compliance at December 31, 2005.

In late 2004, we entered into \$642.9 of forward-starting interest rate swaps to hedge the benchmark interest rate and credit spread on certain debt anticipated to be issued in 2005 in connection with the acquisition of Surface Specialties. Due to a subsequent reduction in borrowing requirements, we liquidated \$25.0 of these swaps in March 2005 at a cost of \$0.4 and \$60.4 of these swaps in June 2005 at a cost of \$3.7. On September 29, 2005, we settled the remaining outstanding swaps at the same time that we priced our public debt offering. The termination payment of \$27.4 was paid in October, 2005.

In connection with the acquisition, we suspended our stock buy-back program and do not anticipate making future stock buy-backs for at least two years from the closing date in order to maximize the funds available for debt service and other corporate purposes.

In order to take advantage of interest rates then in effect, we elected to redeem the MOPPRS in May, 2005, at the optional redemption price of \$141.0. The optional redemption price represented the \$120.0 principal amount of the securities and a \$21.0 pre-tax interest charge for redemption prior to their final maturity. The redemption provided us with the ability to refinance this debt at a significantly lower cost and a shorter tenor.

In conjunction with our note offering, we entered into €207.9 of five year and €207.9 of ten year euro/US dollar cross currency swaps. The swaps included an initial exchange of \$500.0 on October 4, 2005 and will require final principal exchanges of \$250.0 on each settlement date of the 5-Year and 10-Year Notes (October 1, 2010 and October 1, 2015), respectively. At the initial principal exchange, we paid US dollars to counterparties and received euros. Upon final exchange, we will provide euros to counterparties and receive U.S. dollars. The swaps also call for an exchange of fixed euro interest payments for fixed US dollar interest receipts. With respect to the five year swaps, we will receive 5.5% per annum and will pay 3.784% per annum on each April 1 and October 1, through the maturity. With respect to the ten year swaps, we will receive 6.0% per annum and will pay 4.5245% per annum on each April 1 and October 1, through the maturity date.

After accounting for the cross currency swaps, the "all-in" effective interest rate including amortization of underwriters' discount and other offering costs is approximately 4.0% and 4.7% for the 5-Year and 10-Year Notes, respectively.

The euro denominated bank borrowings including the impact of our euro/US dollar cross currency swaps, naturally hedge our euro denominated intercompany receivables and provide a partial hedge of our net investment in our Belgium-based subsidiary, Cytec Surface Specialties SA/NV.

As of December 31, 2005, our total debt of \$1,311.0 is denominated approximately 60% in euros, 38% in dollars and the balance denominated in various other currencies, after taking into account the euro/US dollar cross currency swaps.

As of December 31, 2005, we may borrow up to \$350.0 under our revolving credit facility.

During 2005, we paid four quarterly cash dividends of \$0.10 per common share which aggregated \$17.8. On February 9, 2006 the Board of Directors declared a \$0.10 per common share cash dividend, payable on March 15, 2006 to shareholders of record as of February 27, 2006.

We believe that we have the ability to fund our operating cash requirements, planned capital expenditures and dividends as well as the ability to meet our debt service requirements for the foreseeable future from existing cash and from internal cash generation. However, from time to time, based on such factors as local tax regulations, prevailing interest rates and our plans for capital investment or other investments, it may make economic sense to utilize our existing credit lines in order to meet those cash requirements, which may include debt-service related disbursements.

We have not guaranteed any indebtedness of our unconsolidated associated company.

Excluding the impact of increasing raw materials costs, inflation is not considered significant since the rate of inflation has remained relatively low in recent years and investments in areas of the world where inflation poses a significant risk are limited. The impact of increasing raw material costs are discussed under "Customers and Suppliers" in "Business" in Item 1, herein.

CONTRACTUAL OBLIGATIONS AND COMMERCIAL COMMITMENTS

The following table sets forth our contractual obligations as of December 31, 2005:

Contractual Obligations	Payments Due by Period				
	Total	Less Than 1 Year	1-3 Years	3-5 Years	More than 5 Years
Long-term debt	\$1,277.2	\$51.1	\$247.7	\$526.7	\$451.7
Operating leases	60.3	13.6	19.7	10.6	16.4
Purchase obligations	51.9	16.7	19.4	7.8	8.0
Unfunded employee benefits	15.2	1.5	4.3	3.0	6.4
Total	\$1,404.6	\$82.9	\$291.1	\$548.1	\$482.5

We had net contractual commitments under currency forward contracts in U.S. dollar equivalent amounts of \$42.4, that all settle in less than one year. At December 31, 2005, we also had \$10.5 of natural gas forward contracts that settle in less than one year. (Refer to Item 7A as well as Note 5 of the Notes to Consolidated Financial Statements included herein).

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We had \$46.6 of outstanding letters of credit, surety bonds and bank guarantees at December 31, 2005 that are issued on our behalf in the ordinary course of business to support certain of our performance obligations and commitments. The instruments are typically renewed on an annual basis.

We do not have any unconsolidated limited purpose entities or any undisclosed material transactions or commitments involving related persons or entities.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The following discussion provides forward-looking quantitative and qualitative information about our potential exposures to market risk arising from changes in currency rates, commodity prices and interest rates. Actual results could differ materially from those projected in this forward-looking analysis. Currencies are in millions.

Market risk represents the potential loss arising from adverse changes in the value of financial instruments. The risk of loss is assessed based on the likelihood of adverse changes in fair values, cash flows or future earnings.

In the ordinary course of business, we are exposed to various market risks, including fluctuations in currency rates, commodity prices and interest rates. To manage the exposure related to these risks, we may engage in various derivative transactions in accordance with our established policies. We do not hold or issue financial instruments for trading or speculative purposes. Moreover, we enter into financial instrument transactions with either major financial institutions or highly-rated counterparties and make reasonable attempts to diversify transactions among counterparties, thereby limiting exposure to credit related and performance related risks.

Currency Risk: We periodically enter into currency forward contracts primarily to hedge currency fluctuations of transactions denominated in

currencies other than the functional currency of the business. At December 31, 2005, the principal transactions hedged involved accounts receivable, accounts payable and intercompany loans. When hedging currency exposures, our practice is to hedge such exposures with forward contracts denominated in the same currency and with similar critical terms as the underlying exposure, and therefore, the instruments are effective at generating offsetting changes in the fair value, cash flows or future earnings of the hedged item or transaction.

At December 31, 2005, the currency and net contractual amounts of forward contracts outstanding translated into U. S. dollar equivalent amounts were as follows:

Sell	Buy				
	Euro	Pound Sterling	Canadian Dollar	Australian Dollar	U.S. Dollar
U. S. Dollar	\$11.8	—	\$3.5	\$4.5	—
Euro	—	\$7.3	—	—	—
Norwegian Krone	2.4	—	—	—	\$7.8
Japanese Yen	—	—	—	3.8	—
Other	1.3	—	—	—	—

The fair value of currency contracts, based on forward exchange rates at December 31, 2005, was approximately \$0.1. Assuming that year-end exchange rates between the underlying currencies of all outstanding contracts and the various hedged currencies were to adversely change by a hypothetical 10%, the fair value of all outstanding contracts at year-end would decrease by approximately \$3.5. However, since these contracts hedge specific transactions, any change in the fair value of the contracts would be offset by changes in the underlying value of the transaction being hedged.

In September, 2005, we entered into €207.9 of five year cross currency swaps and €207.9 of ten year cross currency swaps to effectively convert the 5-Year Notes and 10-Year Notes into euro-denominated liabilities. The swaps included an initial exchange of \$500.0 on October 4, 2005 and will require final principal exchanges of \$250.0 on each settlement date of the 5-Year and 10-Year Notes (October 1, 2010 and October 1, 2015), respectively. At the initial principal exchange, we paid US dollars to counterparties and received euros. Upon final exchange, we will provide euros

to counterparties and receive US dollars. The swaps also call for a semi-annual exchange of fixed euro interest payments for fixed US dollar interest receipts. With respect to the five year swaps, we will receive 5.5% per annum and will pay 3.784% per annum on each April 1 and October 1, through the maturity date of the five year swaps. With respect to the ten year swaps, we will receive 6.0% per annum and will pay 4.5245% per annum on each April 1 and October 1, through the maturity date of the ten year swaps. The cross currency swaps have been designated as cash flow hedges of the changes in value of the future euro interest and principal receipts that results from changes in the US dollar to euro exchange rates on certain euro denominated intercompany receivables we have with our subsidiaries. The cross currency swaps plus the euro denominated bank borrowings naturally hedge our euro denominated intercompany loans receivable and, further, provide a partial hedge of our net investment in our Belgium-based subsidiary, Cytec Surface Specialties SA/NV.

At December 31, 2005, the fair value of the five and ten year swaps were \$5.8 and \$2.7, respectively. Assuming other factors are held constant, a hypothetical increase/decrease of 10% in the euro exchange rate would cause an increase/decrease of approximately \$49.2 in the value of the hedging instruments referred to above.

Commodity Price Risk: We use natural gas forward contracts, which are physically settled, to hedge certain utility requirements. The maturities of these contracts correlate highly to the actual purchases of the commodity and have the effect of securing predetermined prices that we pay for the underlying commodity. While these contracts are structured to limit our exposure to increases in commodity prices, they can also limit the potential benefit we might have otherwise received from decreases in commodity prices. Because we take physical delivery of the commodity, these contracts are not required to be recognized on the balance sheet at fair value. Instead, realized gains and losses are included in the cost of the commodity upon settlement of the contract.

At December 31, 2005, the Building Block Chemicals segment Fortier plant's 2006 forecasted natural gas utility requirements were 37% hedged utilizing natural gas forward contracts at an average cost of \$8.84 per MMBTU. These contracts had a notional value of \$10.5 and have delivery dates from January 2006 through December 2006. Based on year-end NYMEX prices, we had net unrealized gains on our natural gas forward contracts at December 31, 2005 of \$2.4. Assuming that year-end natural gas prices were to decrease by a hypothetical 10%, the value of these contracts would decrease by approximately \$1.3.

At December 31, 2005 and 2004, we had outstanding natural gas swaps with a fair value gain of \$1.7 and a fair value loss of \$(0.7), net of taxes, respectively.

Interest Rate Risk: At December 31, 2005, our outstanding borrowings consisted of \$34.3 of short-term borrowings and long-term debt, including the current portion, which had a carrying value of \$1,276.7, a face value of \$1,277.2 and a fair value, based on dealer quoted values, of approximately \$1,243.5.

Assuming other factors are held constant, a hypothetical increase/decrease of 1% in the weighted-average prevailing interest rate on our variable rate debt outstanding as of December 31, 2005, interest expense would increase/decrease by approximately \$1.3 for the next fiscal quarter and the fair value of the fixed rate long-term debt would decrease/increase by approximately \$39.1.

2006 OUTLOOK

In our February 9, 2006 press release, which was also furnished as an exhibit to a current report on Form 8-K, we set forth our assumptions and management's best estimate of the full year 2006 earnings at the time based on various assumptions set forth in our press release. We forecast diluted earnings per share in the range of \$3.45-\$3.70, before special items, for the year. There can be no assurance that sales or earnings will develop in the manner projected. Actual results may differ materially. See "Comments on Forward Looking Statements."

SIGNIFICANT ACCOUNTING ESTIMATES/ CRITICAL ACCOUNTING POLICIES

Accounting principles generally accepted in the United States require management to make certain estimates and assumptions. These estimates and assumptions affect the reported amounts in the consolidated financial statements and the notes thereto. The areas discussed below involve the use of significant judgment in the preparation of our consolidated financial statements and changes in the estimates and assumptions used may impact future results of operations and financial condition.

ENVIRONMENTAL AND OTHER CONTINGENT LIABILITIES

Accruals for environmental remediation and operating and maintenance costs directly related to remediation, and other contingent liabilities are recorded when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated. Accruals are recorded at management's best estimate of the ultimate expected liabilities, without any discount to reflect the time value of money. These accruals are reviewed periodically and adjusted, if necessary, as additional information becomes available.

The amount accrued for environment remediation reflects our assumptions about remediation requirements at the contaminated site, the nature and cost of the remedy, the outcome of discussions with regulatory agencies and other potentially responsible parties at multi-party sites, and the number and financial viability of other potentially responsible parties.

Included in other contingent liabilities are workers' compensation, product liability and toxic tort claims. The amount accrued for other contingent liabilities reflects our assumptions about the incidence, severity, indemnity costs and dismissal rates for existing and future claims.

Accruals for environmental remediation and other contingent liabilities can change substantially if our assumptions are not realized or due to actions by governmental agencies or private parties. We cannot estimate any additional amount of loss or range of loss in excess of the recorded amounts. Moreover, environmental and other contingent

liabilities are paid over an extended period, and the timing of such payments cannot be predicted with any certainty. Accruals for environmental and other contingent liabilities are recorded as other noncurrent liabilities with any amounts expected to be paid out in the next twelve months classified as accrued expenses.

Probable insurance recoveries for past and probable future costs are recorded at management's best estimate of the ultimate expected receipts without discounting to reflect the time value of money and are recorded as other assets. A number of factors impact the estimates of insurance reimbursements. These factors include the financial viability of the insurance companies, the method in which losses will be allocated to the various insurance policies, how legal and defense costs will be covered by the insurance policies, the interpretation of the effect on coverage of various policy terms and limits and their interrelationships, and historical recovery rates over the past ten years.

Defense and processing costs are expensed as incurred. Probable insurance recoveries for defense and processing costs are accrued when the related costs are incurred and are recorded as other assets.

RETIREMENT PLANS

We sponsor defined benefit pension and postretirement benefit plans. The postretirement plans provide medical and life insurance benefits to retirees who meet minimum age and service requirements. Our most significant pension plans are in the U. S., and constituted over 67% of our consolidated pension assets and 66% of projected benefit obligations as of December 31, 2005. The calculation of our pension expense and pension liability associated with our defined benefit pension plans requires the use of a number of assumptions that we deem to be "critical accounting estimates." Changes in these assumptions can result in different pension expense and liability amounts, and actual experience can differ from the assumptions. We believe that the most critical assumptions are the discount rate and the expected rate of return on plan assets.

At the end of each year, we determine the discount rate to be used for pension liabilities. In estimating this rate, we look to rates of return on high quality, long term corporate bonds that receive one of the two highest ratings given by a recognized ratings agency. We discounted our U.S. future pension liabilities using a rate of 5.6% at December 31, 2005. The discount rate used to determine the value of liabilities has a significant effect on expense.

The expected rate of return on plan assets, which was 7.7% for 2005, reflects the long-term average rate of return expected on funds invested or to be invested in the pension plans to provide for the benefits included in the pension liability. We establish the expected rate of return at the beginning of each fiscal year based upon information available to us at that time, including the historical returns of major asset classes, the expected investment mix of the plans' assets, and estimates of future long-term investment returns. The U. S. pension plan's investment mix at December 31, 2005 approximated 67% equities and 33% fixed income securities. Any differences between actual experience and assumed experience are deferred as an unrecognized actuarial gain or loss. The unrecognized net actuarial gain or loss is amortized in accordance with SFAS No. 87, "Employers' Accounting for Pensions."

IMPAIRMENT OF GOODWILL

We have defined our segments as our SFAS No. 142 reporting units. Our four business segments are Cytec Performance Chemicals, Cytec Surface Specialties, Cytec Engineered Materials and Building Block Chemicals. Cytec Performance Chemicals and Cytec Surface Specialties are managed under one executive leadership, and are referred to collectively as Cytec Specialty Chemicals. Cytec Performance Chemicals serves large, global industrial markets. Cytec Surface Specialties serves the large, global coatings market. Cytec Engineered Materials serves principally aerospace markets. Building Block Chemicals sells commodity chemical intermediates to industrial users. The segments above reflect how we run our company, manage the assets and the customer perspective.

We test goodwill for impairment on an annual basis. Goodwill of a reporting unit will be tested for impairment between annual tests if events occur or circumstances change that would likely reduce the fair value of the reporting unit below its carrying value. We use a two-step process to test goodwill for impairment. First, the reporting unit's fair value is compared to its carrying value. We utilize a market multiple approach to determine fair value estimates. Due to the cyclical nature of our reporting units, values are determined utilizing a three year average. The three year period is comprised of the prior year, current year and one year projected amounts. If the market multiple approach yields a result, which may indicate a possible impairment, a discounted cash flow approach is utilized to more precisely determine the reporting unit's fair value. If a reporting unit's carrying amount exceeds its fair value, an indication exists that the reporting unit's goodwill may be impaired, and the second step of the impairment test would be performed. The second step of the goodwill impairment test is used to measure the amount of the impairment loss. In the second step, the implied fair value of the reporting unit's goodwill is determined by allocating the reporting unit's fair value to all of its assets and liabilities other than goodwill in a manner similar to a purchase price allocation. The resulting implied fair value of the goodwill that results from the application of this second step is then compared to the carrying amount of the goodwill and an impairment charge is recorded for the difference.

These evaluations involve amounts that are based on management's best estimates and judgments. Because of the uncertainty inherent in such estimates, actual results may differ from these estimates. We are not aware of reasonably likely events or circumstances that would result in different amounts being estimated that would have a material impact on these assessments for impairment.

IMPAIRMENT OF LONG-LIVED ASSETS, INTANGIBLE ASSETS AND ASSETS TO BE DISPOSED

Long-lived assets and intangible assets with determinable useful lives are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of

an asset may not be recoverable. Assets with indefinite useful lives are reviewed annually for impairment. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of the assets to the future undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets and would be charged to earnings. Intangible assets with determinable useful lives are amortized over their respective estimated useful lives. Assets to be disposed of are reported at the lower of the carrying amount or fair value less the costs to sell.

INCOME TAXES

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis and operating loss and tax credit carryforwards. A valuation allowance is provided when it is more likely than not that some portion or all of the deferred tax assets will not be realized. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in earnings in the period that includes the enactment date.

We intend to reinvest the unremitted earnings of international subsidiaries. Accordingly, no provision has been made for U.S. or additional non-U.S. taxes with respect to these earnings. In the event of repatriation to the U.S., such earnings would be subject to U.S. income taxes in most cases. Foreign tax credits would be available to substantially reduce the amount of U.S. tax otherwise payable in future years.

Our annual effective tax rate is based on expected income, statutory tax rates and tax planning opportunities available in various jurisdictions in which we operate. Significant judgment is required in determining the annual effective tax rate and in evaluating our tax positions.

We establish accruals for tax contingencies when, notwithstanding the reasonable belief that our tax return positions are fully supported, we believe that certain filing positions are likely to be challenged and moreover, that such filing positions may not be fully sustained.

We continually evaluate our tax contingency accruals and will adjust such amounts in light of changing facts and circumstances, including but not limited to emerging case law, tax legislation, rulings by relevant tax authorities, and the progress of ongoing tax audits. Settlement of a given tax contingency could impact the income tax provision in the period of resolution. Our tax contingency accruals are presented in the balance sheet within income taxes payable.

ACQUISITIONS

We account for acquired businesses using the purchase method of accounting which requires that the assets acquired and liabilities assumed be recorded at the date of acquisition at their respective fair values. Our consolidated financial statements and results of operations reflect an acquired business after the completion of the acquisition. The cost to acquire a business, including transaction costs, is allocated to the underlying net assets of the acquired business in proportion to their respective fair values. Any excess of the purchase price over the estimated fair values of the net assets acquired is recorded as goodwill. Amounts allocated to acquired in-process research and development are expensed at the date of acquisition.

The judgments made in determining the estimated fair value assigned to each class of assets acquired and liabilities assumed, as well as asset lives, can materially impact our results of operations. Accordingly, for significant items, we typically obtain assistance from third party valuation specialists.

Determining the useful life of an intangible asset also requires judgment as different types of intangible assets will have different useful lives and certain assets may even be considered to have indefinite useful lives.

All of these judgments and estimates can materially impact our results of operations.

DERIVATIVE FINANCIAL INSTRUMENTS AND COMMODITY HEDGING ACTIVITIES

Financial instruments reflected in the Consolidated Balance Sheets are recorded at cost which approximates fair value for cash and cash equivalents, accounts receivable, certain other assets, accounts payable, and certain other liabilities. Fair values are determined through a combination of management estimates and information obtained from third parties using the latest available market data. Long-term debt is carried at amortized cost.

We use derivative instruments in accordance with our established policies to manage exposure to fluctuations in currency rates, certain commodity (e.g., natural gas) prices, interest rates and equity prices. Derivative instruments currently utilized include currency forward contracts and swaps, natural gas forward contracts and swaps, cross currency swaps and interest rate swaps. We do not hold or issue derivative financial instruments for trading or speculative purposes. We enter into financial instrument transactions with either major financial institutions or highly-rated counterparties and make reasonable attempts to diversify transactions among counterparties, thereby limiting exposure to credit related and performance related risks.

We periodically enter into currency forward contracts primarily to hedge currency fluctuations of transactions denominated in currencies other than the functional currency of the business. The principal transactions hedged involve accounts receivable, accounts payable and intercompany loans. When hedging currency exposures, our practice is to hedge such exposures with forward contracts denominated in the same currency and with similar critical terms as the underlying exposure, and therefore, the instruments are effective at generating offsetting changes in the fair value, cash flows or future earnings of the hedged item or transaction. Currency forward contracts are reported as either assets or liabilities with changes in their fair value recorded in other income (expense), net together with offsetting gain or loss on the hedged asset or liability.

We use cross currency swaps to synthetically convert some of our U.S. dollar denominated debt to hedge future cash flows from euro interest and principal receipts on certain euro denominated intercompany receivables we have with our subsidiaries against changes in the US dollar to euro exchange rates. The cross currency swaps are recorded as either assets or liabilities. Changes in fair value include both an interest and an exchange component. The interest component is recorded in other comprehensive income while the exchange component is recorded in other income (expense), net together with the offsetting gain or loss on the hedged intercompany receivables.

We use natural gas forward contracts, which are physically settled, to hedge certain utility requirements. The maturities of these contracts correlate highly to the actual purchases of the commodity and have the effect of securing predetermined prices that we pay for the underlying commodity. While these contracts are structured to limit our exposure to increases in commodity prices, they can also limit the potential benefit we might have otherwise received from decreases in commodity prices. Because we take physical delivery of the commodity, these contracts are not required to be recognized on the balance sheet at fair value. Instead, realized gains and losses are included in the cost of the commodity upon settlement of the contract.

We also use natural gas swaps, which are financially settled, to hedge utility requirements at certain of our other facilities. These swaps, which are highly effective at achieving offsetting cash flows of the underlying natural gas purchases, have been designated as cash flow hedges and are reported on the consolidated balance sheets at fair value, with offsetting amounts included in unrealized net (losses) gains on cash flow hedges on an after-tax basis. Gains and losses are reclassified into earnings, as a component of manufacturing cost of sales in the period the hedged natural gas purchases affect earnings.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

CONSOLIDATED BALANCE SHEETS

December 31, (Dollars in millions, except per share amounts)	2005	2004
Assets		
Current assets		
Cash and cash equivalents	\$ 68.6	\$ 323.8
Trade accounts receivable, less allowance for doubtful accounts of \$7.8 and \$6.7 in 2005 and 2004, respectively	493.8	248.2
Due from related party	8.0	—
Other accounts receivable	65.9	54.1
Inventories	446.6	263.8
Deferred income taxes	12.2	23.3
Other current assets	27.5	29.3
Total current assets	1,122.6	942.5
Investment in associated companies	20.3	85.5
Plants, equipment and facilities, at cost	2,064.3	1,627.2
Less: accumulated depreciation	(988.8)	(948.6)
Net plant investment	1,075.5	678.6
Acquisition intangibles, net of accumulated amortization of \$51.0 and \$23.1 in 2005 and 2004, respectively	491.5	66.8
Goodwill	1,012.2	342.4
Deferred income taxes	—	54.6
Other assets	88.4	81.2
Total assets	\$3,810.5	\$2,251.6
Liabilities		
Current liabilities		
Accounts payable	\$ 278.6	\$ 138.1
Short-term borrowings	34.3	—
Current maturities of long-term debt	51.2	119.0
Accrued expenses	218.3	178.1
Income taxes payable	43.5	61.5
Total current liabilities	625.9	496.7
Long-term debt	1,225.5	300.1
Pension and other postretirement benefit liabilities	432.5	348.3
Other noncurrent liabilities	224.4	174.5
Deferred income taxes	64.1	—
Stockholders' equity		
Preferred stock, 20,000,000 shares authorized; none issued and outstanding		
Common stock, \$.01 par value per share, 150,000,000 shares authorized; issued 48,132,640 shares	0.5	0.5
Additional paid-in capital	235.6	122.8
Retained earnings	1,149.7	1,108.5
Accumulated other comprehensive income (loss):		
Unearned compensation	(2.5)	(3.1)
Minimum pension liability	(115.6)	(108.5)
Unrealized net gains (losses) on cash flow hedges	0.4	(0.5)
Accumulated translation adjustments	28.2	73.3
	(89.5)	(38.8)
Treasury stock, at cost, 1,833,812 shares in 2005 and 8,297,863 shares in 2004	(58.2)	(261.0)
Total stockholders' equity	1,238.1	932.0
Total liabilities and stockholders' equity	\$3,810.5	\$2,251.6

See accompanying Notes to Consolidated Financial Statements

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CONSOLIDATED STATEMENTS OF INCOME

Years ended December 31,
(Dollars in millions, except per share amounts)

	2005	2004	2003
Net sales	\$2,925.7	\$1,721.3	\$1,471.8
Manufacturing cost of sales	2,313.7	1,303.1	1,111.9
Selling and technical services	213.6	139.8	126.9
Research and process development	68.5	40.0	35.2
Administrative and general	102.1	65.1	49.7
Amortization of acquisition intangibles	30.3	5.6	4.0
Write-off of acquired in-process research and development	37.0	—	—
Earnings from operations	160.5	167.7	144.1
Other income (expense), net	(44.9)	16.9	(5.7)
Equity in earnings of associated companies	7.9	5.2	7.2
Interest expense, net	80.0	17.4	16.2
Earnings from continuing operations before income taxes and cumulative effect of accounting change	43.5	172.4	129.4
Income tax (benefit) provision	(14.4)	41.4	36.6
Earnings from continuing operations before cumulative effect of accounting change	57.9	131.0	92.8
Cumulative effect of accounting change, net of taxes	—	—	(13.6)
Earnings from continuing operations	57.9	131.0	79.2
Earnings from discontinued operations, net of taxes	1.2	—	—
Net earnings	59.1	131.0	79.2
Premium paid to redeem preferred stock	—	9.9	—
Net earnings available to common stockholders	\$ 59.1	\$ 121.1	\$ 79.2
Basic net earnings per common share:			
Earnings from continuing operations before cumulative effect of accounting change	\$ 1.28	\$ 3.06	\$ 2.38
Cumulative effect of accounting change, net of taxes	—	—	(0.35)
Earnings from discontinued operations, net of taxes	0.03	—	—
Net earnings available to common stockholders	\$ 1.31	\$ 3.06	\$ 2.03
Diluted net earnings per common share:			
Earnings from continuing operations before cumulative effect of accounting change	\$ 1.25	\$ 2.96	\$ 2.31
Cumulative effect of accounting change, net of taxes	—	—	(0.34)
Earnings from discontinued operations, net of taxes	0.02	—	—
Net earnings available to common stockholders	\$ 1.27	\$ 2.96	\$ 1.97
Dividends per common share	\$ 0.40	\$ 0.40	\$ —

See accompanying Notes to Consolidated Financial Statements

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CONSOLIDATED STATEMENTS OF CASH FLOWS

Years ended December 31, (Dollars in millions)	2005	2004	2003
Cash flows provided by (used in) operating activities			
Net earnings	\$ 59.1	\$ 131.0	\$ 79.2
Less: Earnings from discontinued operations, net of taxes	1.2	—	—
Earnings from continuing operations	57.9	131.0	79.2
Noncash items included in earnings from continuing operations:			
Dividends from associated companies less than earnings	(5.4)	(2.6)	(1.8)
Depreciation	110.8	86.6	85.9
Amortization	39.0	12.2	7.7
Deferred income taxes	(25.0)	19.6	15.7
Write-off of acquired in-process research and development	37.0	—	—
Amortization of write-up to fair value of finished goods purchased in acquisition	20.8	—	—
Gains on sale of assets	(1.3)	—	—
Unrealized net gains on derivative instruments	—	(7.9)	—
Cumulative effect of accounting change, net of taxes	—	—	13.6
Other	3.0	0.7	(0.5)
Changes in operating assets and liabilities (excluding effect of acquisitions):			
Trade accounts receivable	(12.9)	(24.1)	13.6
Other receivables	31.7	(2.0)	(7.9)
Inventories	9.5	(46.8)	(15.2)
Other assets	21.5	0.4	(1.1)
Accounts payable	2.8	36.5	(13.4)
Accrued expenses	(19.3)	(7.3)	(8.6)
Income taxes payable	(42.6)	7.9	9.2
Other liabilities	—	(36.8)	(44.0)
Net cash provided by operating activities of continuing operations	227.5	167.4	132.4
Net cash provided by operating activities of discontinued operations	4.9	—	—
Net cash provided by operating activities	232.4	167.4	132.4
Cash flows provided by (used in) investing activities			
Acquisition of businesses, net of cash received	(1,459.1)	(4.6)	(101.6)
Additions to plants, equipment and facilities	(105.3)	(89.3)	(93.8)
Proceeds received on sale of assets	105.5	0.7	0.1
Proceeds received on sale of discontinued business	74.3	—	—
Minority interests	(0.6)	—	—
Advance payment received on land lease	—	9.1	—
Net cash used in investing activities	(1,385.2)	(84.1)	(195.3)
Cash flows provided by (used in) financing activities			
Proceeds from long-term debt	1,438.4	—	198.9
Payments on long-term debt	(571.9)	—	(100.0)
Change in short-term borrowings	45.9	(9.3)	(0.3)
Cash dividends	(17.8)	(15.7)	—
Proceeds from the exercise of stock options and warrants	17.7	24.6	14.5
Deferred financing cost	(5.9)	—	—
Purchase of treasury stock	—	(13.1)	(27.7)
Redemption of Series C preferred stock	—	(10.0)	—
Proceeds from termination of interest rate swap	—	2.9	—
Net cash provided by (used in) financing activities	906.4	(20.6)	85.4
Effect of currency rate changes on cash and cash equivalents	(8.8)	10.0	18.6
Increase (decrease) in cash and cash equivalents	(255.2)	72.7	41.1
Cash and cash equivalents, beginning of year	323.8	251.1	210.0
Cash and cash equivalents, end of year	\$ 68.6	\$ 323.8	\$ 251.1

See accompanying Notes to Consolidated Financial Statements

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CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

Years ended December 31, 2005, 2004 and 2003 (Dollars in millions)	Preferred Stock	Common Stock	Additional Paid-in Capital	Retained Earnings	Unearned Compensation	Additional Minimum Pension Liability	Unrealized net (losses) gains on Derivative Instruments	Accumulated Translation Adjustment	Treasury Stock	Total
Balance at December 31, 2002	\$ 0.1	\$ 0.5	\$ 131.1	\$ 924.2	\$ (6.8)	\$ (98.0)	\$ -	\$ (18.8)	\$ (290.7)	\$ 641.6
Net earnings	-	-	-	79.2	-	-	-	-	-	\$ 79.2
Other comprehensive income:										
Minimum pension liability adjustment, net of taxes of \$2.4	-	-	-	-	-	1.2	-	-	-	1.2
Unrealized net gains on derivative instruments	-	-	-	-	-	-	0.3	-	-	0.3
Translation adjustments	-	-	-	-	-	-	-	56.8	-	56.8
Comprehensive income										\$ 137.5
Award of, and changes in, performance and restricted stock	-	-	2.3	-	(0.4)	-	-	-	(1.7)	0.2
Amortization of performance and restricted stock	-	-	-	-	1.9	-	-	-	-	1.9
Purchase of treasury stock	-	-	-	-	-	-	-	-	(27.7)	(27.7)
Exercise of stock options	-	-	(19.1)	-	-	-	-	-	33.6	14.5
Tax benefit on stock options	-	-	7.9	-	-	-	-	-	-	7.9
Balance at December 31, 2003	\$ 0.1	\$ 0.5	\$ 122.2	\$ 1,003.4	\$ (5.3)	\$ (96.8)	\$ 0.3	\$ 38.0	\$ (286.5)	\$ 775.9
Net earnings	-	-	-	131.0	-	-	-	-	-	\$ 131.0
Other comprehensive income:										
Minimum pension liability adjustment, net of taxes of \$17.6	-	-	-	-	-	(11.7)	-	-	-	(11.7)
Unrealized net gains on derivative instruments	-	-	-	-	-	-	(0.8)	-	-	(0.8)
Translation adjustments	-	-	-	-	-	-	-	35.3	-	35.3
Comprehensive income										\$ 153.8
Award of, and changes in, performance and restricted stock	-	-	2.6	-	(2.4)	-	-	-	0.3	0.5
Amortization of performance and restricted stock	-	-	-	-	4.6	-	-	-	-	4.6
Purchase of treasury stock	-	-	-	-	-	-	-	-	(13.1)	(13.1)
Redemption of preferred stock	(0.1)	-	-	(9.9)	-	-	-	-	-	(10.0)
Dividends:										
Common stock outstanding	-	-	-	(15.7)	-	-	-	-	-	(15.7)
Deferred and unvested common stock	-	-	-	(0.3)	-	-	-	-	-	(0.3)
Exercise of stock options	-	-	(13.7)	-	-	-	-	-	38.3	24.6
Tax benefit on stock options	-	-	11.7	-	-	-	-	-	-	11.7
Balance at December 31, 2004	\$ -	\$ 0.5	\$ 122.8	\$ 1,108.5	\$ (3.1)	\$ (108.5)	\$ (0.5)	\$ 73.3	\$ (261.0)	\$ 932.0

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CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (CONTINUED)

Years ended December 31, 2005, 2004 and 2003 (Dollars in millions)	Preferred Stock	Common Stock	Additional Paid-in Capital	Retained Earnings	Unearned Compensation	Additional Minimum Pension Liability	Unrealized net (losses) gains on Derivative Instruments	Accumulated Translation Adjustment	Treasury Stock	Total
Balance at December 31, 2004	\$—	\$0.5	\$122.8	\$1,108.5	\$(3.1)	\$(108.5)	\$(0.5)	\$ 73.3	\$(261.0)	\$ 932.0
Net earnings	—	—	—	59.1	—	—	—	—	—	\$ 59.1
Other comprehensive income:										
Minimum pension liability adjustment, net of taxes of \$7.3	—	—	—	—	—	(11.7)	—	—	—	(11.7)
Reduction in minimum pension liability resulting from divestiture of CYRO	—	—	—	—	—	4.6	—	—	—	4.6
Unrealized net gains on derivative instruments	—	—	—	—	—	—	0.9	—	—	0.9
Translation adjustments	—	—	—	—	—	—	—	(45.1)	—	(45.1)
Comprehensive income										\$ 7.8
Award of, and changes in, performance and restricted stock	—	—	1.7	—	(2.1)	—	—	—	(0.1)	(0.5)
Amortization of performance and restricted stock	—	—	—	—	2.7	—	—	—	—	2.7
Issuance of common stock related to acquisition	—	—	109.2	—	—	—	—	—	181.6	290.8
Dividends:										
Common stock outstanding	—	—	—	(17.8)	—	—	—	—	—	(17.8)
Deferred and unvested common stock	—	—	—	(0.1)	—	—	—	—	—	(0.1)
Exercise of stock options	—	—	(3.6)	—	—	—	—	—	21.3	17.7
Tax benefit on stock options	—	—	5.5	—	—	—	—	—	—	5.5
Balance at December 31, 2005	\$—	\$0.5	\$235.6	\$1,149.7	\$(2.5)	\$(115.6)	\$ 0.4	\$ 28.2	\$(58.2)	\$1,238.1

See accompanying Notes to Consolidated Financial Statements

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(Currencies in millions, except per share amounts, unless otherwise indicated)

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Nature of Business and Consolidation

Policy: We are a global specialty chemicals and materials company focused on developing, manufacturing and selling value-added products. Our products serve a diverse range of end markets including aerospace, adhesives, automotive and industrial coatings, chemical intermediates, inks, mining, plastics and water treatment. We use our technology and application development expertise to create chemical and material solutions that are formulated to perform specific and important functions in the finished products of our customers. We operate on a global basis with 40% of our 2005 revenues in North America, 40% in Europe, 14% in Asia-Pacific and 6% in Latin America. We have manufacturing and research facilities located in 20 countries. The consolidated financial statements include the accounts of Cytec and our subsidiaries on a consolidated basis. Intercompany transactions and balances have been eliminated. The equity method of accounting is used for investments in associated companies that we do not control, but for which we have the ability to exercise significant influence on operating and financial policy.

B. Inventories: Inventories are stated at the lower of cost or market. We determine cost using the first in, first out method.

C. Currency Translation: Operations in our international subsidiaries are recorded in local currencies which are also the functional currencies for financial reporting purposes. The results of operations for our international subsidiaries are translated from local currencies into U.S. dollars using the average currency rate during each period which approximates the results that would be obtained using actual currency rates on the dates of individual transactions. Assets and liabilities are translated using currency rates at the end of the

period with translation adjustments recorded in accumulated translation adjustments and recognized as a component of other comprehensive income. Transaction gains and losses are recorded as incurred in other income (expense), net.

D. Depreciation: Depreciation is provided on either the straight-line or the straight-line composite method. Assets acquired in conjunction with the Surface Specialties business ("Surface Specialties") of UCB SA ("UCB") and assets outside the United States and Canada are depreciated on a straight-line basis over the estimated useful lives of the assets. Depreciation for the remainder of our assets in the United States and Canada is provided primarily on a straight-line composite method over the estimated useful lives of various classes of assets, with rates periodically reviewed and adjusted if necessary. When such depreciable assets are sold or otherwise retired from service, their costs plus demolition costs less amounts realized on sale or salvage are charged or credited to the accumulated depreciation account. Expenditures for maintenance and repairs are charged to current operating expenses. Acquisitions, additions and betterments, either to provide necessary capacity, improve the efficiency of production units, modernize or replace older facilities or to install equipment for protection of the environment, are capitalized. We capitalize interest costs incurred during the period of construction of plants and equipment.

E. Impairment of Long-Lived Assets and Long-Lived Assets to Be Disposed: Long-lived assets and intangible assets with determinable useful lives are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of the assets to the future undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets and would be charged to earnings. Assets to be disposed of are reported at the lower of the carrying amount or fair value less the costs to sell. Intangible assets are

amortized over their respective estimated useful lives. Long-lived assets with indefinite useful lives are tested for impairment annually and more often if circumstances warrant.

F. Goodwill: We have defined our reportable segments as our reporting units for our goodwill accounting. We test goodwill for impairment on an annual basis in our fourth fiscal quarter and more often if events occur or circumstances change that would likely reduce the fair value of a reporting unit to an amount below its carrying value. When necessary, we record charges for goodwill impairments for the amount by which the fair value is less than the carrying value of the asset.

We use a two-step process to test goodwill for impairment. First, the reporting unit's fair value is compared to its carrying value. We utilize a market multiple approach to determine fair value estimates. Due to the cyclical nature of our reporting units, market multiple values are determined utilizing a three-year average. The three-year period is comprised of the prior year, current year and one year of projected amounts. If the market multiple approach yields a result, which may indicate a possible impairment, a discounted cash flow approach is utilized to more precisely determine the reporting units' fair value. If a reporting unit's carrying amount exceeds its fair value, an indication exists that the reporting unit's goodwill may be impaired, and the second step of the impairment test would be performed. The second step of the goodwill impairment test is used to measure the amount of the impairment loss. In the second step, the implied fair value of the reporting unit's goodwill is determined by allocating the reporting unit's fair value to all of its assets and liabilities other than goodwill in a manner similar to a purchase price allocation. The resulting implied fair value of the goodwill that results from the application of this second step is then compared to the carrying amount of the goodwill and an impairment charge would be recorded for the difference.

G. Cash and Cash Equivalents: Securities with maturities of three months or less when purchased are considered to be cash equivalents.

H. Financial Instruments: Financial instruments are recorded at cost which approximates fair value for cash and cash equivalents, receivables, certain other assets, accounts payable, and certain other liabilities. Fair values are determined through a combination of management estimates and information obtained from third parties using the latest available market data. Long-term debt is carried at amortized cost.

We use derivative instruments in accordance with our established policies to manage exposure to fluctuations in currency exchange rates, interest rates and certain commodity (e.g., natural gas) prices. We do not hold or issue derivative financial instruments for trading or speculative purposes. We enter into financial instrument transactions with either major financial institutions or highly-rated counterparties and make reasonable attempts to diversify transactions among counterparties, thereby limiting exposure to credit related and performance related risks.

We use currency forward contracts to manage our exposure to fluctuations in currency rates on transactions denominated in currencies other than the functional currency of the business. Our practice is to hedge such exposures with forward contracts denominated in the same currency and with similar critical terms as the underlying exposure, and therefore, the instruments are effective at generating offsetting changes in the fair value, cash flows or future earnings of the hedged item or transaction. These contracts are reported at their fair value with changes in fair value recorded in other income (expense), net, together with the offsetting gain or loss on the exposed asset or liability.

We use cross currency swaps to hedge future cash flows from euro interest and principal receipts on certain euro denominated intercompany receivables we have with our subsidiaries against changes in the U.S. dollar to euro exchange rates. The cross currency swaps are recorded at fair value as either assets or liabilities. Changes in fair value include both an interest and an exchange component. The interest component is recorded in other comprehensive income while the exchange component is recorded in other income (expense), net together with the offsetting gain or loss on the hedged intercompany receivables.

We use both forward contracts and swaps to hedge certain of our utility requirements at our manufacturing facilities. The maturities of the forward contracts correlate highly to the actual purchases of the commodity and have the effect of securing predetermined prices that we pay for the underlying commodity. While these contracts are structured to limit our exposure to increases in commodity prices, they can also limit the potential benefit we might have otherwise received from decreases in commodity prices.

Forward contracts that are physically settled are not required to be recognized on the balance sheet at fair value. Instead, realized gains and losses are included in the cost of the commodity upon settlement of the contract.

Financially settled forward contracts and swaps on commodities are reported at fair value with offsetting amounts included in unrealized net gains (losses) on cash flow hedges on an after-tax basis. Gains and losses are reclassified into earnings, as a component of manufacturing cost of sales in the period the hedged commodity purchases affect earnings.

See Note 2 for information about our interest rate swap and currency forward contract activity in connection with our acquisition of Surface Specialties.

I. Environmental and Other Contingent

Liabilities: Accruals for environmental remediation, maintenance and operating costs directly related to remediation, and other contingent liabilities are recorded when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated.

It is our practice to conduct an analysis of our self-insured and insured contingent liabilities annually and whenever circumstances change significantly. Included in these liabilities are workers' compensation, product liability and toxic tort claims.

Accruals for environmental liabilities and other contingent liabilities are recorded as other liabilities with amounts expected to be paid out in the next twelve months classified as accrued expenses at undiscounted amounts.

Probable insurance recoveries for past and future indemnity costs are recorded in other receivables at our best estimate of the ultimate expected receipts at undiscounted amounts. Defense and processing costs are expensed as incurred. Probable insurance recoveries for defense and processing costs relate only to actual costs incurred.

In addition, we recognize the fair value of the liability for an asset retirement obligation in the period in which it is incurred if a reasonable estimate of fair value can be made. The present value of the liability is added to the carrying amount of the associated asset and this additional carrying amount is depreciated over the life of the asset. The liability is accreted at the end of each period through charges to operating expense. If the obligation is settled for other than the carrying amount of the liability we recognize a gain or loss on settlement.

J. Income Taxes: Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis and operating loss and tax credit carryforwards. A valuation allowance is provided when it is more likely than not that some portion or all of the deferred tax assets will not be realized. We measure deferred tax assets and liabilities using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in earnings in the period that includes the enactment date. If repatriation of the undistributed earnings of our international subsidiaries and associated companies is anticipated then income taxes are provided for such earnings.

K. Postretirement Benefits: Costs are recognized as employees render the services necessary to earn the related benefits.

L. Revenue Recognition: We recognize revenue when persuasive evidence of an arrangement exists, the selling price is fixed or determinable, collection is reasonably assured and title and risk of loss has passed to our customers. Customer rebates are estimated and recognized as a reduction of sales as such rebates are being earned.

M. Stock-Based Compensation: We account for our stock based compensation under the recognition and measurement principles of Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees* ("APB 25") and related interpretations. No stock-based compensation cost is reflected in net earnings for stock options, as all options granted had an exercise price equal to the market value of the underlying common stock on the date of the grant. Compensation cost for restricted stock is recorded based on the market value on the date of grant, and compensation cost for performance stock is recorded based on the market price of our common stock at the end of each period through the date of vesting. The fair value of restricted and performance stock is charged to unearned compensation in Stockholders' Equity and amortized to expense over the requisite vesting periods. Stock appreciation rights ("SARS") payable in cash and outstanding at December 31, 2005 are accounted for as a liability under APB 25. Compensation cost for SARS is recognized over the vesting period and through the life of the award based on changes in the market price of our common stock over the market price at the grant date.

The following table illustrates the pro forma effect on net earnings available to common stockholders and net earnings available to common stockholders per share if we had applied the fair value recognition provisions of Statement of Financial Accounting Standards, *Accounting for Stock-Based Compensation* ("SFAS 123") to stock-based employee compensation (see Note 15 for information related to our stock option valuation assumptions). Option forfeitures are accounted for as they occurred and no amounts of compensation expense have been capitalized into inventory or other assets, but instead are considered period expenses in these pro forma amounts.

	2005	2004	2003
Net earnings available to common stockholders as reported	\$59.1	\$121.1	\$79.2
Add: Stock based employee compensation expense included in reported net income, net of related tax effects	1.6	3.0	1.3
Deduct: Total stock based employee compensation expense determined under fair value based method for all awards, net of related tax effects	7.3	7.1	7.8
Pro forma net earnings available to common stockholders	\$53.4	\$117.0	\$72.7
Net earnings available to common stockholders per share:			
Basic, as reported	\$1.31	\$ 3.06	\$2.03
Basic, pro forma	\$1.18	\$ 2.96	\$1.87
Diluted, as reported	\$1.27	\$ 2.96	\$1.97
Diluted, pro forma	\$1.15	\$ 2.87	\$1.81

N. Newly Issued Accounting Pronouncements:

In December, 2004, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards No. 123 (revised 2004), *Share-Based Payment*, ("SFAS 123R"). SFAS 123R addresses the accounting for transactions in which an enterprise receives employee services in exchange for (a) equity instruments of the enterprise or (b) liabilities that are based on the fair value of the enterprise's equity instruments or that may be settled by the issuance of such equity instruments. When SFAS 123R becomes effective, it will replace SFAS 123 and supersede APB 25 and will require companies to recognize compensation cost in an amount equal to the fair value of share-based payments, such as stock options granted to employees. As required, we will adopt the new standard effective January 1, 2006 utilizing the modified prospective basis as allowed under SFAS 123R and we expect to record pre-tax incremental share-based employee compensation expense of \$10.5 in 2006.

In November 2005, the FASB issued FSP FAS123(R)-3, "Transition Election to Accounting for the Tax Effects of Share Based Payment Awards." This FSP requires an entity to follow either the transition guidance for the additional paid-in capital pool as prescribed in SFAS No. 123R or the alternative transition method as described in the FSP. An entity that adopts SFAS No. 123R using the modified prospective application may make a one-time election to adopt the transition method

described in this FSP. An entity may take up to one year from the later of its initial adoption of SFAS No. 123R or the effective date of this FSP to evaluate its available transition alternatives and make its on-time election. This FSP became effective in November 2005. We are evaluating the impact of the adoption of this FSP in connection with our adoption of SFAS No. 123R.

In November 2004, the FASB issued SFAS No. 151, "Inventory Costs – An amendment of ARB No. 43, Chapter 4" ("SFAS 151"). SFAS 151 amends the guidance in ARB No. 43, Chapter 4, "Inventory Pricing," to clarify the accounting for abnormal amounts of idle facility expense, freight, handling costs, and wasted material (spoilage). Additionally, SFAS No. 151 requires that the allocation of fixed production overheads to the costs of conversion be based on the normal capacity of the production facilities. SFAS No. 151 is required to be adopted by us in the first quarter of 2006. We have determined that the adoption of SFAS 151 will not have a material impact on our consolidated financial statements.

O. Use of Estimates: The preparation of financial statements in conformity with U.S. generally accepted accounting principles require management to make estimates and assumptions. These estimates or assumptions affect the reported amounts and disclosures. For example, estimates are used when accounting for allowance for doubtful accounts, inventory valuations, useful lives of tangible and intangible assets, recoverability of goodwill, accrued expenses, environmental and other contingent liabilities, pension and other postretirement benefits, income tax valuation allowances and assumptions utilized within stock option valuation models. Actual results could differ from these estimates. Accounting estimates require the use of judgment regarding uncertain future events and their related effects and, accordingly, may change as additional information is obtained.

2. ACQUISITIONS AND DISPOSITIONS

2005 Activity: On February 28, 2005, we acquired the Surface Specialties for cash and stock valued at \$1,799.7, of which \$1,508.9 (€1,138.5 at 1.325 U.S. dollar per euro) was paid in cash and the balance was paid in 5,772,857 shares of Cytec common stock (\$290.8 at \$50.37 per Cytec share). During September 2005, we received \$25.4 from UCB representing a reduction of the purchase price for finalization of working capital amounts as of the acquisition date. After considering the final working capital adjustment and transaction costs incurred of \$14.9, the acquisition was valued at \$1,789.2. The acquisition complements our existing product lines by significantly increasing our product offering to the coatings and additives industries including the general industrial, automotive, architectural, plastic, graphic arts and wood sectors.

In accordance with the purchase agreement, contingent consideration up to a maximum of €50.0 was to be determined in January 2006 based upon 2005 year-end results, of which €20.0 (\$26.5 at \$1.325 per euro) was prepaid at closing. In view of the parties' expectation that the contingent consideration would not be payable, we were refunded the payment during September 2005 provided that a final year-end determination of the actual contingent payment due, if any, would still be made. Subsequently, we determined that no amounts were due under this agreement.

Upon closing, UCB became the owner of approximately 12.5% of our outstanding common shares. We entered into a stockholder's agreement (the "Stockholder's Agreement") with UCB which provides, subject to various exceptions, that UCB must reduce its stake to less than 9% within three years, less than 7% within four years and less than 5% within five years and which provides that UCB will be prohibited from purchasing additional shares of our common stock or causing, advocating or participating in a change of control in the ownership of Cytec. The Stockholder's Agreement also contains customary terms and conditions including an obligation of UCB to vote its shares of Cytec common stock in accordance with our Board of Directors' recommendation on certain matters.

Pursuant to regulatory approvals, we were required to divest the Surface Specialties amino resins ("SSAR") product line. On August 31, 2005, we sold SSAR to affiliates of INEOS Group Limited ("INEOS") for cash consideration of €64.0 (\$78.2 at 1.22 U.S. dollar per euro). In the fourth quarter we paid \$1.6 to INEOS representing a reduction of the selling price for final working capital adjustments as of the acquisition date. After considering the final working capital adjustment, the sale was valued at \$76.6 (\$72.8 net of disposition related expenses of \$3.8). Since acquisition, and through the date of sale, SSAR was classified as a discontinued operation. Revenues of SSAR were \$74.3 for the six months ended August 31, 2005 (acquisition through date of sale). The net proceeds realized from the divestiture of SSAR were used to reduce acquisition related debt. At December 31, 2005, of the \$3.8 of disposition related expenses, \$1.5 remained to be paid.

In late 2004, we entered into \$642.9 of forward-starting interest rate swaps to hedge the benchmark interest rate and credit spread on certain debt anticipated to be issued in 2005 in connection with the acquisition. Due to a subsequent reduction in borrowing requirements, we liquidated \$25.0 of these swaps in March 2005 at a cost of \$0.4 and \$60.4 of these swaps in June 2005 at a cost of \$3.7. In September 2005, we settled the remaining outstanding swaps at the same time that we priced our public debt offering. The termination payment of \$27.4 was paid in October 2005. The swaps were marked to market and recorded currently in earnings until their termination. The net pre-tax impact of the mark to market value on these swaps was a loss of \$25.0 for the year ended December 31, 2005, which was recorded in other income (expense), net. We recorded a loss of \$6.5 on these swaps in 2004.

We had also previously entered into currency forward contracts that related to approximately 87% of the euro exposure of €1,190.0 for the cash component of the Surface Specialties acquisition. The forward contracts, which matured on February 28, 2005, were marked to market and recorded currently in earnings until their maturity. The impact on earnings for the three months ended March 31, 2005 of the marked to market adjustment on these forward contracts was a net

pre-tax expense of \$19.2 and was recorded in other income (expense), net. In 2004, we recorded a gain of \$33.3 on currency forward transactions entered into in connection with the acquisition.

The following table summarizes the estimated fair value of the assets acquired and the liabilities assumed in the acquisition. We have substantially completed the purchase price allocation and our own internal assessment. As part of this assessment we contracted with a third party to perform a physical verification of the fixed assets acquired at certain significant manufacturing facilities. We are awaiting the final report of the third party. Accordingly, the property, plant and equipment, goodwill and deferred taxes are subject to a final adjustment.

Cash	\$ 34.6
Current deferred tax assets	27.8
Other current assets	532.7
Assets of discontinued operations	91.8
Property, plant and equipment	449.2
Goodwill	728.3
Acquired intangible assets	490.4
Acquired in-process research and development	37.0
Other assets	34.2
Total assets acquired	\$2,426.0
Current liabilities	\$ 286.1
Liabilities of discontinued operations	26.5
Long-term deferred tax liabilities	187.3
Long-term debt	9.9
Other long-term liabilities	127.0
Total liabilities assumed	636.8
Net assets acquired	\$1,789.2

The \$728.3 of goodwill is not tax deductible and, \$38.0 was allocated to our Cytec Performance Chemicals segment and \$690.3 was allocated to our Cytec Surface Specialties segment. Included in acquired intangible assets is \$45.7 relating to certain trade names which have indefinite useful lives. The remaining intangibles that were acquired were assigned to customer-related (\$382.6), marketing-related (\$50.8) and technology-related intangibles (\$11.3), and are being amortized over periods of 10 to 15 years. Immediately following the acquisition, \$37.0 of acquired in-process research and development costs were written off.

Following are the unaudited pro forma combined results of continuing operations for the years ended December 31, 2005 and 2004 as if Cytec and Surface Specialties had been combined and the sale of SSAR had been completed as of January 1, 2004. Additionally, the write-off of in-process research and development costs and inventory valuation adjustments were excluded from the 2005 and 2004 amounts as they are considered non-recurring charges. The pro forma results include estimates and assumptions which are subject to adjustment pending our finalization of the purchase price allocation. However, pro forma results do not include any anticipated cost savings or other effects of the planned integration and are not indicative of the results which would have actually occurred if the business combination had been in effect on the dates indicated, or which may result in the future. The pro forma information set forth below considers the following factors: the issuance of 5,772,857 shares of our common stock to UCB in connection with the acquisition; the issuance of acquisition-related debt of \$1,325.0 at a weighted-average interest rate of 3.79% and the associated increase in interest expense, net of the after tax proceeds from the sale of SSAR used to pay down such debt; a net reduction in cash and an associated reduction in interest income as a result of the on-hand cash utilized to purchase Surface Specialties; increased amortization of acquisition intangibles; decreased depreciation expense based on asset values and estimated useful lives included in the valuation report; amortization of deferred financing costs; and the tax effects of each of these items.

	Years Ended December 31,	
	2005	2004
Revenues	\$3,150.6	\$2,917.3
Earnings from continuing operations	\$ 110.8	\$ 164.4
Earnings from continuing operations per common share:		
Basic	\$ 2.40	\$ 3.63
Diluted	\$ 2.34	\$ 3.53

On June 1, 2005, we sold our 50% ownership in CYRO Industries ("CYRO") to our joint venture partner Degussa Specialty Polymers, an affiliate of

Degussa AG, for cash consideration of \$95.0 plus \$5.4 for working capital adjustments. The proceeds of this transaction essentially recovered the carrying value of our investment in CYRO. Net proceeds of the sale were also used to reduce debt incurred to fund the Surface Specialties acquisition.

2003 Transactions: In July 2003, we acquired substantially all of the assets and liabilities of the metal extractant products ("MEP") and intermediates and stabilizers ("I&S") product lines of Avecia Investments Limited ("Avecia") for approximately \$96.1 in cash, net of cash acquired. The MEP product line, which had sales in 2002 of approximately \$29.0 (unaudited) broadened our product line for the mining industry with differentiated technology. The I&S product line broadened our customer base and added new products and manufacturing technologies. The I&S product line had sales in 2002 of approximately \$36.0 (unaudited). Both the MEP and I&S product lines are reported as part of the Cytec Performance Chemicals segment.

In conjunction with this acquisition, we acquired various working capital and plant, equipment and facilities and recorded amortizable acquisition intangibles of \$24.4 (technology-based intangibles of \$9.1, marketing-related intangibles of \$0.7, and customer-related intangibles of \$14.6 with estimated lives ranging from 12 to 15 years) and goodwill of \$8.4. This goodwill is recorded as part of the Cytec Performance Chemicals segment.

In September 2003, we dissolved our Mitsui Cytec Ltd ("MCY") joint venture with Mitsui Chemicals Inc. ("Mitsui"). The joint venture's sales in 2002 were approximately \$59.0. The transaction resulted in the recognition of customer-related amortizable acquisition intangibles of \$7.0 and goodwill of \$4.6. This goodwill is recorded as part of the Cytec Surface Specialties segment.

The dissolution of the joint venture occurred as follows. MCY sold the water treatment business to a separate subsidiary of Mitsui for its fair value which approximated its net book value of approximately \$8.8. No gain or loss resulted from this transaction. Mitsui's equity interest in MCY was then purchased by us for approximately \$11.5 in a

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two-step process whereby MCY paid approximately \$7.8 and we paid approximately \$3.7 for the remainder. We assumed the debt of the joint venture of \$9.7.

The result of the transaction was such that we now own 100% of MCY's coatings resins product line (2002 sales of approximately \$22.0) and the associated assets and liabilities of the product line that includes a manufacturing facility in Shimonoseki, Japan. This is now reported as part of the Cytec Surface Specialties segment. Mitsui now owns 100% of the water treatment product line and the associated assets and liabilities of the product line that includes a production facility in Mobarra, Japan.

All of our acquisitions have been accounted for under the purchase method of accounting and the results of operations have been included in the consolidated financial statements from the date of acquisition.

3. RESTRUCTURING OF OPERATIONS

In 2005, we recorded aggregate restructuring charges of \$16.8, which related to the elimination of 136 positions worldwide. Of the total of 136 positions, 22 related to our Cytec Engineered Materials segment and 114 related to our Specialty Chemicals segments. The restructuring costs, which were primarily severance related, were charged to expense as follows: manufacturing cost of sales, \$5.0; selling and technical services, \$3.7; research and process development, \$0.8 and administrative and general, \$7.3. These costs were not recorded in the operating results of the respective business segment as they were included in our corporate unallocated operating results.

A summary of the 2005 restructuring charges is outlined in the table below:

	Cytec Engineered Materials	Cytec Specialty Chemicals	Total
2005 charges	\$1.6	\$15.2	\$16.8
Cash payments	–	6.3	6.3
Balance at December 31, 2005	\$1.6	\$ 8.9	\$10.5

Cash payments are expected to be substantially completed in 2006 except for certain long-term severance payments.

4. EARNINGS PER SHARE

Basic earnings per common share excludes dilution and is computed by utilizing the weighted-average number of common shares outstanding (which includes shares outstanding less performance and restricted shares for which vesting criteria have not been met) plus deferred stock awards, weighted for the period outstanding. Diluted earnings per common share is computed by utilizing the weighted-average number of common shares outstanding for the period adjusted (i.e., increased) for all additional common shares that would have been outstanding if potentially dilutive common shares had been issued and any proceeds of the issuance had been used to repurchase common stock at the average market price during the period. The proceeds used to repurchase common stock are assumed to be the sum of the amount to be paid to us upon exercise of options, the amount of compensation cost attributed to future services and not yet recognized and the amount of income taxes that would be credited to or deducted from capital upon exercise. Preferred stock dividends were paid on preferred shares through the date at which it was redeemed.

In calculating basic and diluted earnings available to common stockholders per share, there are no adjustments to income (the numerator) other than the premium paid to redeem preferred stock of \$9.9 in 2004. The following shows the reconciliation of the weighted average shares (the denominator) used in the calculation of diluted earnings per share:

December 31,	2005	2004	2003
Weighted average shares outstanding:	45,241,738	39,548,312	38,957,611
Effect of dilutive shares:			
Options	1,044,924	1,148,311	1,082,652
Performance/ Restricted Stock	95,487	133,328	118,413
Adjusted average shares outstanding	46,382,149	40,829,951	40,158,676

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Stock options to purchase 912,200, 407,450 and 1,328,100 shares of common stock at a weighted-average price per share of \$47.82, \$48.10 and \$43.25 were outstanding during 2005, 2004 and 2003, respectively. These stock options were excluded from the above calculation because their inclusion would have had an anti-dilutive effect on earnings per share.

5. DERIVATIVE FINANCIAL INSTRUMENTS AND COMMODITY HEDGING ACTIVITIES

DERIVATIVE FINANCIAL INSTRUMENTS

In September 2005, we entered into €207.9 of five year cross currency swaps and €207.9 of ten year cross currency swaps. The swaps included an initial exchange of \$500.0 on October 4, 2005 and will require final principal exchanges of \$250.0 each on the settlement date of the 5-Year Note due October 1, 2010 and 10-Year Notes due October 1, 2015 as defined in Note 10. At the initial principal exchange, we paid U.S. dollars to counterparties and received euros. Upon final exchange, we will

provide euros to counterparties and receive U.S. dollars. The swaps also call for a semi-annual exchange of fixed euro interest payments for fixed U.S. dollar interest receipts. With respect to the five year swaps, we will receive 5.5% per annum and will pay 3.784% per annum on each April 1 and October 1, through the maturity date of the five year swaps. With respect to the ten year swaps, we will receive 6.0% per annum and will pay 4.5245% per annum on each April 1 and October 1, through the maturity date of the ten year swaps. The cross currency swaps have been designated as cash flow hedges of the changes in value of the future euro interest and principal receipts that result from changes in the U.S. dollar to euro exchange rates on certain euro denominated intercompany receivables we have with our subsidiaries. At December 31, 2005, the fair values of the five and ten year swaps were \$5.8 and \$2.7, respectively. Euro denominated bank borrowings naturally hedge the remainder of our euro denominated intercompany loans receivable and provide a partial hedge of our net investment in our Belgium based subsidiary, Cytex Surface Specialties SA/NV.

At December 31, 2005 and 2004, the currency and net contractual amounts of forward contracts outstanding translated into U.S. dollar equivalent amounts were as follows:

	2005					2004		
	Buy					Buy		
	Euro	Pound Sterling	Canadian Dollar	Australian Dollar	U.S. Dollar	Euro	Pound Sterling	Canadian Dollar
Sell								
U.S. Dollar	\$11.8	\$ -	\$3.5	\$4.5	\$ -	\$24.2	\$1.0	\$2.5
Euro	-	7.3	-	-	-	-	0.9	-
Norwegian Krone	2.4	-	-	-	7.8	6.3	-	-
Japanese Yen	-	-	-	3.8	-	-	-	-
Other	1.3	-	-	-	-	0.8	-	-

The fair value of currency contracts, based on forward exchange rates at December 31, 2005 and 2004 was approximately \$0.1 and \$0.6, respectively.

COMMODITY HEDGING ACTIVITIES

At December 31, 2005, the Building Block Chemicals segment Fortier plant's 2006 forecasted natural gas utility requirements were 37% hedged utilizing natural gas forward contract at an average cost of \$8.84 per MMBTU. These contracts totaled

\$10.5 and have delivery dates from January 2006 through December 2006. Based on year end NYMEX prices, we had net unrealized gains/(losses) on our natural gas forward contracts at December 31, 2005 and 2004 of \$2.4 and \$(1.6), respectively.

At December 31, 2005 and 2004, we had outstanding natural gas swaps with a fair value gain/(loss) of \$1.7 and \$(0.7), net of taxes, respectively.

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See Note 2 for information about our interest rate swap and currency forward contract activity in connection with our acquisition of Surface Specialties.

6. EQUITY IN EARNINGS OF ASSOCIATED COMPANIES AND MINORITY INTERESTS

Through May 31, 2005, we had one associated company that was material to our operations, CYRO. Sales to associated companies, primarily CYRO, amounted to \$18.7, \$38.3 and \$37.4 in 2005, 2004 and 2003, respectively. Amounts due from CYRO at December 31, 2004 totaled \$8.3. We have determined that the profit or loss on sales to our associated companies for inventory that they held is immaterial; therefore, no adjustments have been made to eliminate such profit or loss.

Fees received from associated companies, primarily CYRO, were \$0.8 through May 31, 2005, and \$2.3 and \$7.8 in 2004 and 2003, respectively. Fees from CYRO are recorded in manufacturing cost of sales and are related primarily to manufacturing services provided to CYRO at our Fortier, Louisiana manufacturing complex. We continue to provide CYRO with these services.

Upon acquisition of Surface Specialties, Cytec acquired a 50% ownership interest in SK Cytec Co., Ltd. ("SK Cytec"), a joint venture that manufactures and sells certain similar products to those sold by Surface Specialties. The operations of SK Cytec are not material to the results of our operations.

Upon acquisition of Surface Specialties, we also acquired ownership interests in two majority-owned

entities for which the net assets and results of operations are consolidated. The earnings associated with the minority ownership interests are included in other income (expense), net and totaled \$0.6 for the year ended December 31, 2005. The minority ownership interests in the net assets of these entities are included in other noncurrent liabilities and totaled \$2.1 as of December 31, 2005.

7. INVENTORIES

December 31,	2005	2004
Finished goods	\$288.4	\$165.0
Work in progress	26.3	20.6
Raw materials and supplies	131.9	78.2
Total inventories	\$446.6	\$263.8

8. PLANTS, EQUIPMENT AND FACILITIES

December 31,	2005	2004
Land and land improvements	\$ 85.6	\$ 34.7
Buildings	327.8	249.8
Machinery and equipment	1,596.9	1,298.3
Construction in progress	54.0	44.4
Plants, equipment and facilities, at cost	\$2,064.3	\$1,627.2

The average composite depreciation rates utilized in the U.S. and Canada, expressed as a percentage of the average depreciable property in service, were 5.2% in 2005, 5.8% in 2004 and 6.1% in 2003. Gross cost of the assets depreciated under the composite method in the U.S. and Canada totaled \$1,185.6 and \$1,163.9 as of December 31, 2005 and 2004, respectively. Depreciation is calculated using the straight line depreciation method for assets at the remainder of our locations with the estimated useful lives of these assets ranging from 4 to 40 years.

9. GOODWILL AND OTHER ACQUISITION INTANGIBLES

Following are the changes in goodwill by segment. The 2003 beginning balances have been restated to reflect our new organizational structure (see Note 17).

	Cytec Perfor- mance Chemicals	Cytec Surface Specialties	Cytec Engin- eered Materials	Corporate	Total
Balance, January 1, 2003	\$55.4	\$25.6	\$252.4	\$0.6	\$334.0
2003 acquisitions	10.5	2.5	—	—	13.0
Purchase adjustment ⁽¹⁾	—	—	(4.7)	—	(4.7)
Currency exchange	(2.7)	0.2	(0.2)	0.1	(2.6)

	Cytec Perfor- mance Chemicals	Cytec Surface Specialties	Cytec Engin- eered Materials	Corporate	Total
Balance, December 31, 2003	\$ 63.2	\$ 28.3	\$247.5	\$0.7	\$ 339.7
Purchase adjustment ⁽²⁾	(0.1)	—	—	—	(0.1)
Currency exchange	1.9	1.0	(0.1)	—	2.8
Balance, December 31, 2004	\$ 65.0	\$ 29.3	\$247.4	\$0.7	\$ 342.4
2005 acquisitions	38.0	690.3	—	—	728.3
Currency exchange	(1.5)	(50.9)	0.2	—	(52.2)
Purchase adjustment ⁽³⁾	—	—	(6.3)	—	(6.3)
Balance, December 31, 2005	\$101.5	\$668.7	\$241.3	\$0.7	\$1,012.2

- (1) Purchase accounting adjustment relates to the recognition of deferred tax assets relating to an acquisition that occurred in a prior reporting period.
- (2) Purchase accounting adjustments relate to various items, primarily revision of pension liabilities associated with our September 2003 acquisition of certain product lines of Avecia.
- (3) We recorded a reduction to goodwill of \$6.3 as a result of the favorable resolution of a tax contingency related to an acquisition that occurred in a prior reporting period.

Other acquisition intangibles consisted of the following major classes:

	Weighted Average Useful Life (years)	Carrying Value	Gross Value	Accumulated Amortization	Carrying Value	Net Value
December 31,	2005	2005	2004	2005	2004	2005
Technology-based	15.2	\$ 52.2	\$42.5	\$(15.0)	\$(12.2)	\$ 37.2
Marketing-related	15.4	58.9	11.6	(9.0)	(4.0)	49.9
Marketing-related	Indefinite	41.8	—	—	—	41.8
Customer-related	15.0	389.6	35.8	(27.0)	(6.9)	362.6
Total		\$542.5	\$89.9	\$(51.0)	\$(23.1)	\$491.5
						\$66.8

Amortization of acquisition intangibles for the year ended December 31, 2005, 2004 and 2003 was \$30.3, \$5.6, and \$4.0, respectively. Amortization expense for the year ended December 31, 2005 includes ten months of amortization of the acquisition intangibles associated with our purchase of Surface Specialties. Assuming no change in the gross carrying amount of acquisition intangibles and the currency exchange rates

remain constant, the estimated future amortization expense for the year 2006 is \$33.9, for the years 2007 through 2009 is \$33.8 per year, and for the year 2010 is \$33.7. Included in marketing-related intangibles at December 31, 2005 is \$41.8 relating to certain trade names purchased upon acquisition of Surface Specialties which have indefinite useful lives.

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10. DEBT

Long-term debt, including the current portion, consisted of the following:

	December 31,			
	2005		2004	
	Face	Carrying Value	Face	Carrying Value
Five-Year Term Loan Due February 15, 2010	\$ 461.2	\$ 461.2	\$ -	\$ -
6.75% Notes Due March 15, 2008	100.0	98.8	100.0	98.2
5.5% Notes Due October 1, 2010	250.0	249.6	-	-
6.846% Mandatory Par Put Remarketed Securities ("MOPPRS")	-	-	120.0	119.0
4.6% Notes Due July 1, 2013	200.0	201.7	200.0	201.9
6.0% Notes Due October 1, 2015	250.0	249.4	-	-
Other	16.0	16.0	-	-
	\$1,277.2	\$1,276.7	\$420.0	\$419.1
Less: Current maturities	51.2	51.2	120.0	119.0
Long-term Debt	\$1,226.0	\$1,225.5	\$300.0	\$300.1

The fair value of our long-term debt, including the current portion, based on dealer quoted values, was \$1,243.5 at December 31, 2005, and \$418.8 at December 31, 2004.

In February 2005, we entered into credit agreements totaling \$1,775.0 in preparation for our acquisition of Surface Specialties. The agreements included a \$725.0 unsecured 5-year term loan facility, a \$700.0 364-day credit facility, and a \$350.0 5-year revolving credit facility. We borrowed \$725.0 under the term loan facility and \$600.0 under the 364-day credit facility both at interest rates based on a floating LIBOR rate plus an applicable margin which is based on our credit rating and is subject to change (1.0% at December 31, 2005). The \$725.0 facility requires amortization payments equal to the lesser of \$72.5 or the then outstanding balance by December 31 of each year from 2005 through 2008 with a final payment due February 15, 2010. As of December 31, 2005, we have prepaid \$30.5 of the \$72.5 amortization payment due on December 31,

2006. The revolving credit facility provides additional liquidity for general corporate purposes. The facilities contain covenants that are customary for such facilities; including subsequent amendments to allow prepayments under the term loan to be applied in forward order of maturity and to add back specified restructuring charges in the determination of EBITDA under the revolving credit and term loan facilities.

In order to take advantage of current interest rates, we elected to redeem the MOPPRS in May, 2005, at the optional redemption price of \$141.0. The optional redemption price represented the \$120.0 principal amount of the securities and a \$21.0 pre-tax interest charge for redemption prior to their final maturity. The redemption provided us with the ability to refinance this debt at a significantly lower cost and a shorter tenor. Upon redemption, we recognized additional interest expense of \$1.0 from amounts related to the unamortized put premium and rate lock agreements for these securities. The total expense of \$22.0 was recorded in 2005 in interest expense, net.

During October 2005, we sold \$250.0 principal amount of 5.5% Notes due October 1, 2010 and \$250.0 principal amount of 6.0% Notes due October 1, 2015 (the "5-Year Notes" and the "10-Year Notes," respectively, and collectively, the "Notes"). The Notes were offered under our \$600.0 shelf registration statement. We received approximately \$495.1 in net proceeds from the offering after deducting the underwriting discount and other estimated offering expenses. The net proceeds from the offering were used to repay all amounts outstanding under our unsecured 364-day facility and our revolving credit facility, which was approximately \$417.5 and \$66.2, respectively. The 364-day facility is now terminated. The Notes will pay interest on each April 1 and October 1, commencing on April 1, 2006 through their respective due dates. The Notes are unsecured and may be redeemed in whole or in part, at our option at any time subject to a prepayment adjustment.

The weighted average interest rate on long-term debt was 4.4% for 2005 and 5.7% for 2004.

At December 31, 2005 and 2004, we had available for short-term use approximately \$92.4 and \$16.5,

respectively, of non-U.S. dollar denominated credit facilities. There were outstanding borrowings of \$48.7 and \$0.0 under these facilities at December 31, 2005 and 2004, respectively.

Cash payments during the years ended December 31, 2005, 2004 and 2003, included interest of \$75.3, \$20.2 and \$18.2, respectively. Included in interest expense, net, for the years ended December 31, 2005, 2004 and 2003, is interest income of \$3.7, \$5.5 and \$3.8, respectively.

At December 31, 2005, we had no outstanding borrowings under our 5-year revolving credit facility.

11. CONTINGENCIES AND COMMITMENTS

ENVIRONMENTAL AND RELATED MATTERS

We are subject to substantial costs arising out of environmental laws and regulations, which include obligations to remove or limit the effects on the environment of the disposal or release of certain wastes or substances at various sites or to pay compensation to others for doing so.

Our most significant environmental liabilities relate to remediation and regulatory closure obligations at manufacturing sites now or formerly owned by us. We are also involved in legal proceedings directed at the cleanup of various other sites, including a number of federal or state Superfund sites. Since the laws pertaining to Superfund sites generally impose retroactive, strict, joint and several liability, a governmental plaintiff could seek to recover all remediation costs at any such site from any of the potentially responsible parties ("PRPs") for such site, including us, despite the involvement of other PRPs. In some cases, we are one of several hundred identified PRPs, while in others we are the only one or one of only a few. Generally, where there are a number of financially solvent PRPs, liability has been apportioned, or we believe, based on our experience with such matters, that liability will be apportioned based on the type and amount of waste disposed by each PRP at such disposal site and the number of financially solvent PRPs. In many cases, the nature of future environmental expenditures cannot be quantified with accuracy. In

addition, from time to time in the ordinary course of our business, we are informed of, and receive inquiries with respect to, additional sites that may be environmentally impaired and for which we may be responsible.

As of December 31, 2005 and 2004, the aggregate environmental related accruals were \$102.9 and \$70.7, respectively, of which \$7.5 and \$10.0, respectively, are included in accrued expenses with the remainder included in other noncurrent liabilities. The increase in environmental related accruals was primarily related to liabilities assumed upon our acquisition of Surface Specialties which are associated with the remediation of certain manufacturing sites primarily located in Europe. Environmental remediation spending, for the years ended December 31, 2005, 2004 and 2003, was \$6.6, \$9.4 and \$9.3, respectively. In the first quarter of 2005, we increased our reserves by \$4.4 as a result of our agreement in principle to settle claims by a third party for the costs of environmental remediation at a manufacturing site operated by the former American Cyanamid Company ("Cyanamid") prior to 1944. In connection with our spin-off from Cyanamid in 1993, we agreed to indemnify Cyanamid for claims of this nature. Under the terms of the settlement which was finalized in the second quarter of 2005, the third party has released all claims and indemnified us against third-party environmental remediation claims arising from the alleged contamination at the site. Although we believed that we had meritorious defenses to this claim, we agreed to the settlement to avoid incurring additional legal fees and any risk of an adverse outcome in any related litigation. During 2004, we recorded a pre-tax charge of \$6.1 in connection with the settlement of several environmental and toxic tort lawsuits which were all related to a single manufacturing site operated by Cyanamid prior to 1963. The full settlement which was paid in 2004 amounted to \$8.6, of which \$2.5 was charged against a previously established environmental remediation reserve for these matters.

On January 1, 2003, as a result of the adoption of SFAS 143, we recorded an after tax charge of \$13.6 for the cumulative effect of prior years for depreciation of the additional costs and accretion expense on the asset retirement liability. At

December 31, 2005 and 2004, the asset retirement liability was \$39.1 and \$22.3, respectively, which is included in other liabilities. Accretion and depreciation expense for the years ended December 31, 2005, 2004 and 2003 were \$3.1, \$1.8 and \$1.8, respectively.

OTHER CONTINGENCIES

We are the subject of numerous lawsuits and claims incidental to the conduct of our or certain of our predecessors' businesses, including lawsuits and claims relating to product liability, personal injury including asbestos, environmental, contractual, employment and intellectual property matters.

As of December 31, 2005 and 2004, the aggregate self-insured and insured contingent liability was \$65.8 and \$68.4, respectively, and the related insurance recovery receivable was \$37.7 and \$37.9, respectively. The asbestos liability included in the above amounts at December 31, 2005 and 2004 was \$47.8 and \$50.4, respectively, and the related insurance receivable was \$34.7 and \$34.2, respectively. We anticipate receiving a net tax benefit for payment of those claims for which full insurance recovery is not realized.

ASBESTOS

The following table presents information about the number of claimants involved in asbestos cases with us:

	Year Ended December 31, 2005	Year Ended December 31, 2004
Number of claimants at beginning of period	27,947	26,955
Number of claimants associated with claims closed during period	(11,949)	(3,540)
Number of claimants associated with claims opened during period	2,113	4,532
Number of claimants at end of period	18,111	27,947

The claimants allege exposure to asbestos at facilities formerly or currently owned by us or from products that we formerly manufactured for specialized applications. Most of these cases involve numerous defendants, sometimes as many as several hundred. Historically, most of the closed

asbestos claims against us have been dismissed without any indemnity payment by us, and we have no information that this pattern will change.

Our asbestos liability and related insurance receivable is based on a study we commissioned in 2003 by the Actuarial and Analytics Practice of AON Risk Consultants ("AON"). We provided AON with, among other things, detailed data for the past ten years on the incidence of claims, the incidence of malignancy claims, indemnity payments for malignancy and non-malignancy claims, and dismissal rates by claim. The actuarial methodology employed by AON was primarily based on epidemiological data assumptions regarding asbestos disease manifestation, the information provided by us, and the estimates of claim filing and indemnity costs that may occur in the future. In conjunction with AON, we also conducted a detailed review of our insurance policies and estimated insurance recoveries in 2003. We expect to recover close to 50% of our future indemnity costs and certain defense and processing costs already incurred. Most of our insurance is with carriers with investment grade ratings and only those with such ratings were included in the estimation of the recovery of indemnity and defense costs. We anticipate updating the study approximately every three years or earlier if circumstances warrant.

It should be noted that the ultimate liability and related insurance recovery for all pending and anticipated future claims cannot be determined with certainty due to the difficulty of forecasting the numerous variables that can affect the amount of the liability and insurance recovery. These variables include but are not limited to: (i) significant changes in the number of future claims; (ii) significant changes in the average cost of resolving claims; (iii) changes in the nature of claims received; (iv) changes in the laws applicable to these claims; and (v) financial viability of co-defendants and insurers.

LEAD PIGMENT

We are among several defendants in approximately 30 cases, in which plaintiffs assert claims for personal injury, property damage, and other claims for relief relating to one or more kinds of lead pigment that were used as an ingredient decades ago in paint for use in buildings. The

different suits were brought by government entities and/or individual plaintiffs, on behalf of themselves and others. The suits variously seek compensatory and punitive damages and/or injunctive relief, including funds for the cost of monitoring, detecting and removing lead based paint from buildings and for medical monitoring; for personal injuries allegedly caused by ingestion of lead based paint; and plaintiffs' attorneys' fees. We believe that the suits against us are without merit, and we are vigorously defending against all such claims. Accordingly, no loss contingency has been recorded.

In July 2005, the Supreme Court of Wisconsin held in a case in which we were one of several defendants that Wisconsin's risk contribution doctrine applies to bodily injury cases against manufacturers of white lead pigment. Under this doctrine, manufacturers of white lead pigment may be liable for injuries caused by white lead pigment based on their past market shares unless they can prove they are not responsible for the white lead pigment which caused the injury in question. Seven other courts have previously rejected the applicability of this and similar doctrines to white lead pigment. We settled this case for an immaterial amount. Although similar cases may be filed in Wisconsin, we intend to vigorously defend ourselves if such case(s) are filed based on what we believe to be our non-existent or diminutive market share. Accordingly, we do not believe that our liability, if any, in such cases will be material, either individually or in the aggregate and no loss contingency has been recorded.

We have access to a substantial amount of primary and excess general liability insurance for property damage and believe these policies are available to cover a significant portion of both our defense costs and indemnity costs, if any, for lead pigment-related property damage claims. We have agreements in principle with several of our insurers which provide that they will pay for approximately fifty percent (50%) of our defense costs associated with lead pigment related property damage claims and we continue to pursue recovery of our defense costs from additional insurers.

OTHER

During 2004, we signed a stipulation of settlement with plaintiffs in a federal class action lawsuit on

behalf of purchasers of carbon fiber. As a result of this and several other related litigation matters, in 2004 we recorded a pre-tax charge of \$8.0 which is included in administrative and general.

In the second quarter of 2005, we increased our reserves by \$2.4 as a result of our agreement in principle, which was signed in the third quarter, to settle certain claims by a third party for \$2.7.

In 2006, we were named as a defendant in a series of civil cases alleging violation of antitrust laws relating to the sale of methyl methacrylate, a chemical manufactured and sold by CYRO, and seeking damages arising out of such alleged violations. We sold our interest in CYRO to Degussa in 2005, and in accordance with the terms of the sales agreement, we expect Degussa and CYRO to provide us with full indemnity for any losses and expenses associated with these cases.

In February 2006, a subsidiary of DSM filed a lawsuit against us seeking immediate dissolution of AMEL, the melamine manufacturing joint venture between DSM and Cytec or the appointment of a receiver for the joint venture, the rescission of the services agreement between Cytec and AMEL and compensatory damages. We believe this lawsuit is without merit and we are vigorously defending against all of the claims.

Periodically, we enter into settlement discussions for lawsuits or claims for which we have meritorious defenses and for which an unfavorable outcome against us is not probable. In such instances, no loss contingency is recorded since a loss is not probable and it is our policy to accrue defense costs as incurred. Typically, we consider these types of settlements in fairly limited circumstances usually related to the avoidance of future defense costs and/or the elimination of any risk of an unfavorable outcome. Such settlements, if any, are recorded when it is probable a liability has been incurred, typically upon entering into a settlement agreement.

While it is not feasible to predict the outcome of all pending environmental matters, lawsuits and claims, it is reasonably possible that there will be a necessity for future provisions for costs for environmental matters and for other contingent liabilities that we believe, will not have a material

adverse effect on our consolidated financial position, but could be material to our consolidated results of operations or cash flows in any one accounting period. We cannot estimate any additional amount of loss or range of loss in excess of the recorded amounts. Moreover, many of these liabilities are paid over an extended period, and the timing of such payments cannot be predicted with any certainty.

From time to time, we are also included in legal proceedings as a plaintiff involving tax, contract, patent protection, environmental and other legal matters. Gain contingencies related to these matters, if any, are recorded when they are realized.

We commenced binding arbitration proceedings against SNF SA, ("SNF"), in 2000 to resolve a commercial dispute relating to SNF's failure to purchase agreed amounts of acrylamide under a long-term agreement. In July, 2004, the arbitrators awarded us damages and interest aggregating approximately €11.0 euros plus interest on the award at the rate of 7% per annum from July 28, 2004. We have obtained a court order in France to enforce the award, which order is being appealed by SNF. No gain contingency has been recorded. Subsequent to the arbitration award, SNF filed a complaint alleging criminal violation of French and European Community antitrust laws relating to the contract which was the subject of the arbitration proceedings. We believe that the complaint is without merit.

COMMITMENTS

Rental expense under property and equipment leases was \$14.3 in 2005, \$10.8 in 2004 and \$10.2 in 2003. Estimated future minimum rental expenses under property and equipment leases that have initial or remaining noncancelable lease terms in excess of one year as of December 31, 2005, are:

	Operating Leases
2006	\$13.6
2007	11.0
2008	8.7
2009	6.7
2010	3.9
Thereafter	16.4
Total minimum lease payments	\$60.3

We frequently enter into long-term contracts with customers with terms that vary depending on specific industry practices. Our business is not substantially dependent on any single contract or any series of related contracts. Set forth below are more specific terms about our significant sales contracts.

We have the option to sell, and an affiliate of an international trading company is obligated to buy, up to approximately 40% of our production capacity of acrylonitrile per year under a long-term distributorship agreement that is scheduled to expire on May 1, 2008. The price under this distributorship agreement is market-based less certain costs and commissions.

We are obligated to sell, and a tenant at our Fortier facility is obligated to buy, substantially all of our nominal production capacity of hydrocyanic acid under an agreement with an initial term expiring December 31, 2011. Price is determined by a formula based on the raw materials used to manufacture hydrocyanic acid and to a lesser extent on the selling price of such tenant's product based on hydrocyanic acid and is adjusted periodically.

We are obligated to sell sulfuric acid, and also to regenerate used sulfuric acid, and a tenant at our Fortier facility is obligated to buy such product and services, under an agreement with an initial term expiring December 31, 2011. The price for regenerated sulfuric acid is cost based and the price for sulfuric acid is set between the price for regenerated sulfuric acid and a market price for sulfuric acid and both prices are adjusted periodically. The cost to regenerate sulfuric acid is substantially in excess of the cost of producing sulfuric acid. Regenerated sulfuric acid and sulfuric acid are produced in the same plant at the same time.

We are obligated to manufacture a customer's requirements for certain resins utilized in the automotive industry under long-term manufacturing agreements which may be terminated on December 31 of any year upon two years prior written notice.

We are obligated to sell and, subject to certain exceptions, an aerospace customer is obligated to

buy its requirements of various specialty materials for products related to certain aircraft programs, under an agreement which is scheduled to expire at the end of 2013. The agreement specifies price which is fixed annually.

The Cytec Engineered Materials segment is party to a number of long-term supply and pricing agreements that cover various time periods. Such agreements are common practice in the aerospace and aircraft manufacturing industries.

We frequently enter into long-term agreements in order to lock-in price and availability of raw materials and services required to operate our businesses. At December 31, 2005, obligations under such agreements totaled \$51.9.

We had \$46.6 of outstanding letters of credit, surety bonds and bank guarantees at December 31, 2005 that are issued on our behalf in the ordinary course of business to support certain of our performance obligations and commitments. The instruments are typically renewed on an annual basis.

12. INCOME TAXES

The income tax provision (benefit) is based on earnings (losses) from continuing operations before income taxes and, in 2003, before the cumulative effect of accounting change as follows:

	2005	2004	2003
U. S.	\$(22.3)	\$105.1	\$ 68.7
Non-U.S.	65.8	67.3	60.7
Total	43.5	\$172.4	\$129.4

The components of the income tax provision (benefit) are as follows:

	2005	2004	2003
Current:			
U. S. Federal	\$ (8.6)	\$ 6.3	\$ 1.9
Non-U.S.	27.3	12.8	16.2
Other, principally state	1.5	2.2	1.4
Total	20.2	21.3	19.5
Deferred:			
U. S. Federal	(8.3)	20.3	10.4
Non-U.S.	(23.5)	(0.1)	0.9
Other, principally state	(2.8)	(0.1)	5.8
Total	(34.6)	20.1	17.1
Total income tax provision (benefit)	\$(14.4)	\$ 41.4	\$ 36.6

Income taxes paid in 2005, 2004 and 2003 were \$64.4, \$16.6 and \$14.7, respectively and include non-U.S. taxes of \$59.8, \$15.7 and \$12.0 in 2005, 2004 and 2003, respectively. For 2005, \$19.9 of pre-acquisition income taxes were paid by the acquired Surface Specialties entities of which \$19.4 has been reimbursed to us from UCB.

U. S. and non-U.S. earnings (losses) of consolidated companies, before income taxes, include all earnings derived from operations in the respective U.S and non-U.S. geographic areas; whereas provisions (benefits) for income taxes include all income taxes payable to (receivable from) U.S. Federal, non-U.S. and other governments as applicable, regardless of the situs in which the taxable income (loss) is generated. The temporary differences that give rise to a significant portion of deferred tax assets and liabilities were as follows:

December 31,	2005	2004
Deferred tax assets:		
Allowance for bad debts	\$ 4.8	\$ 2.5
Self insurance accruals	24.5	26.4
Operating accruals	14.4	14.9
Environmental accruals	32.1	26.7
Pension and postretirement benefit liabilities	164.0	149.1
Employee benefit accruals	15.4	18.9
Tax credit carry forwards	18.4	13.9
Net operating losses	39.4	13.1
Other	25.2	4.0
Gross deferred tax assets	338.2	269.5
Valuation allowance	(23.2)	(12.2)
Total net deferred tax assets	315.0	257.3
Deferred tax liabilities:		
Inventory	(7.5)	(11.1)
Plants, equipment and facilities	(180.6)	(124.4)
Insurance receivables	(11.3)	(13.4)
Intangibles	(158.4)	(30.4)
Other	(8.9)	(0.1)
Gross deferred tax liabilities	(366.7)	(179.4)
Net deferred tax assets / (liabilities)	\$ (51.7)	\$ 77.9

The American Jobs Creation Act of 2004 (the "Act") introduced a special one-time dividend received deduction on the repatriation of certain foreign earnings to a U.S. taxpayer provided certain criteria are met. We completed our evaluation of this repatriation provision in 2005 and concluded that no earnings will be repatriated under the Act. In

addition, at December 31, 2005 no provision has been made for U.S. or additional non-U.S. taxes on the undistributed earnings of international subsidiaries totaling \$476.2 since we intend to reinvest these earnings. It is not practicable to calculate the unrecognized deferred tax liability on such earnings. U.S. foreign tax credits would be available to substantially reduce any amount of additional U.S. tax that might be payable on these earnings in the event of a distribution.

We have U.S. research and development tax credit carryforwards of \$5.0 available as of December 31, 2005 to offset future U.S. tax liabilities. These carryforwards begin to expire at various dates starting in 2022 through 2025. U.S. foreign tax credit carryforwards of \$7.0 are available to offset future U.S. tax liabilities. The Act extended the period of time over which U.S. foreign tax credits may be carried forward from five years to ten years. Accordingly, such U.S. foreign tax credits will now expire at various dates starting in 2011 through 2015. We also have \$3.4 of state tax credits of which \$2.4 will be carried forward indefinitely with the balance to expire at various dates starting in 2006. Additionally, we have \$3.0 of foreign jurisdiction tax credits mainly related to our operations in Belgium and Mexico, of which \$0.7 will expire in 2007 with the balance having an unlimited carryforward period.

At December 31, 2005, we have U.S. federal income tax net operating loss carryforwards of \$9.3 relating to a 1998 acquisition available to offset future taxable income. Utilization of those loss carryforwards is limited under certain provisions of the Internal Revenue Code. The carryforwards begin to expire at various dates starting in 2010 through 2018. In addition, we have foreign net operating losses totaling \$24.1, primarily related to our operations in Europe, Canada and China. These net operating losses are available to offset future taxable income in the respective foreign countries. Of the total carryforwards, approximately \$5.9 expire at various dates starting in 2006 through 2013, while \$18.2 can be utilized over an indefinite period.

Our long-term earnings trend makes it more likely than not that we will generate sufficient taxable income on a consolidated basis to realize our

deferred tax assets with the exception of certain state net operating losses and state tax credits, and various foreign deferred tax assets. Accordingly, we have recorded a valuation allowance of \$23.2 and \$12.2 as of December 31, 2005 and 2004. For 2005, the \$11.0 valuation allowance activity primarily consisted of a \$0.6 decrease for various stated deferred tax assets, offset by an increase to the valuation allowance for foreign net operating losses and other foreign deferred tax assets (\$3.0), and acquired Surface Specialties deferred tax assets (\$8.6), the latter of which was recorded as an offset to goodwill. As of December 31, 2005, \$15.7 of the valuation allowance is attributable to U.S. state tax attributes and \$7.5 primarily relates to foreign net operating losses.

The Internal Revenue Service (the "IRS") has completed and closed its audits of our tax returns through 2001. In January, 2005, we were notified that the Congressional Joint Committee on Taxation (the "Joint Committee") approved the final IRS examination findings for the years 1999 through 2001. Joint Committee also approved a separate tax refund claim filed by us for 1998 at that time. The approval by Joint Committee resulted in a tax refund of approximately \$0.2 and \$0.1 for the years 1998 and 2000 respectively, which was recorded in 2005. As a result of the resolution of these audits, we also recorded a reduction in tax expense of approximately \$16.2. The IRS is also currently conducting audits of our tax returns for the years 2002 and 2003. We believe that adequate provisions for all outstanding issues have been made for all open years.

In May, 2005, we received a final notice from the Norwegian Assessment Board disclosing an increase to taxable income with respect to a 1999 restructuring of certain of our European operations. The tax liability attributable to this assessment, excluding interest and possible penalties, was approximately 84.0 Norwegian krone (\$12.4). This final assessment reflects a 20.7 Norwegian krone decrease in the assessed tax liability compared with the prior audit report issued by the tax authorities. As a result, we recorded a corresponding reduction in tax expense of approximately \$4.2, including interest, to reflect such final assessment. We have retained tax

counsel to assist in our defense of the final assessment since the issue will likely be litigated given our vigorous defense in protesting the increase of taxable income.

We also received a separate notice from the Norwegian tax authorities in 2005 disclosing a complete termination of pleadings regarding a potential Norway permanent establishment ("PE") with respect to an affiliate of one of our subsidiaries. Given the favorable resolution of this PE issue with respect to one of our subsidiaries, we have adjusted our tax contingency reserves accordingly and recorded a reduction in tax expense of \$5.4, including interest, in the second quarter ended June 30, 2005.

Notwithstanding our meritorious defenses in these matters, in prior years as these matters developed, we accrued for the potential unfavorable outcome of this dispute for the full amount of the tax liability of the assessment including interest thereon.

In October 2005, we received notice from the Norwegian authorities demanding a tax payment of 56.0 Norwegian krone (\$8.5) plus accrued interest with respect to the 1999 restructuring. We remitted this deposit with the tax authorities pending final resolution of this matter. Based on the Norwegian demand notice, we also determined that \$22.0 Norwegian krone (\$3.3) related to this issue will be remitted in subsequent tax return filings without an interest charge until this dispute is resolved. In light of these events, we reevaluated our total liability (including interest) on the potential unfavorable outcome of this dispute, and recorded a reduction in tax expense of 16.9 Norwegian krone (\$2.6) to adjust the interest component of this liability accordingly. Assuming the dispute resolution process follows a normal course, a complete resolution of the Norwegian issue will probably occur in late 2006 or early 2007.

A reconciliation of our effective tax rate to the U.S. federal income tax rate is as follows:

	2005	2004	2003
Federal income tax rate	35.0%	35.0%	35.0%
Research and development credit	(5.2)	(1.8)	(3.2)
Income subject to other than the federal income tax rate	(21.1)	(7.1)	(6.3)
Change in tax rates	(1.1)	(1.1)	—
State taxes, net of federal benefits	(3.7)	(2.8)	2.0
Valuation allowance	5.6	4.4	3.6
Acquired in-process research and development write-off	29.8	—	—
Extraterritorial income exclusion	(7.8)	(1.8)	(1.6)
Favorable resolution of prior year audits	(65.0)	—	—
Other (credits) charges, net	0.5	(0.8)	(1.2)
Effective tax rate	(33.0)%	24.0%	28.3%

Our 2005 effective tax rate was favorably impacted by hedging losses incurred in the U.S. in connection with the Surface Specialties acquisition, the MOPPRS redemption, and reduction in tax expense due to the completion of tax audits for various years as discussed above. The rate was unfavorably impacted by the write-off of acquired in-process research and development expenses related to the Surface Specialties acquisition for which there is no tax benefit, and the increase in the valuation allowance for certain state and foreign deferred tax assets.

In 2003 a tax benefit of \$7.3 was allocated to the cumulative effect of accounting change and, in 2005 tax expense of \$0.8 related to discontinued operations.

Tax benefits on stock option exercises of \$5.5, \$11.7 and \$7.9 were allocated directly to stockholders' equity for 2005, 2004 and 2003, respectively.

13. EMPLOYEE BENEFIT PLANS

We have defined benefit pension plans that cover employees in a number of countries. Almost all of the plans provide defined benefits based on years of service and career average salary. We also sponsor postretirement and post employment benefit plans in certain countries. The postretirement plans provide medical and life insurance benefits to retirees who meet minimum

age and service requirements. The medical plans are contributory and non-contributory with certain participant's contributions adjusted annually; the life insurance plans are non-contributory. The accounting for the postretirement plans anticipates future cost-sharing and changes to the plans. The postretirement plans include a cap on our share of costs for recent and future retirees. The post employment plans provide salary continuation, disability related benefits, severance pay and continuation of health costs during the period after employment but before retirement.

The enactment of The Medicare Prescription Drug, Improvement and Modernization Act of 2003 resulted in a reduction of our accumulated postretirement benefit obligation ("APBO") of approximately \$31.7 in 2004, which we recognized as a reduction in unrecognized net actuarial loss. This reduction in the APBO results from an ongoing

tax-free government subsidy beginning in 2006, for prescription drug benefits provided to plan participants if such benefits are determined to be actuarially equivalent to those offered by Medicare. Based on the current guidance of determining actuarial equivalence, we have been able to determine that some of the plan participants qualify for the subsidy. We amortize the unrecognized net actuarial loss over the average remaining service life of employees eligible for postretirement medical benefits. The net periodic postretirement benefit cost was reduced by \$3.9 and \$2.4, respectively, for the years ended December 31, 2005 and 2004.

We use a measurement date of December 31 for the U.S. and Canadian pension and postretirement benefit plans and use a measurement date of November 30 for the majority of all other pension plans.

	Pension Plans			Postretirement Plans		
	2005	2004	2003	2005	2004	2003
Net periodic cost:						
Service cost	\$21.4	\$14.4	\$12.5	\$1.3	\$1.0	\$1.4
Interest cost	41.3	34.7	32.5	13.7	14.3	16.6
Expected return on plan assets	(42.1)	(38.9)	(35.5)	(4.7)	(4.9)	(5.0)
Net amortization and deferral	15.8	7.8	3.4	(10.6)	(10.6)	(10.7)
Curtailment/Settlement	(2.7)	—	—	—	—	—
Net periodic expense (credit)	\$33.7	\$18.0	\$12.9	\$(0.3)	\$(0.2)	\$2.3
Weighted-average assumptions used to determine net periodic cost, during the year:						
Discount rate	5.4%	6.0%	6.4%	5.8%	6.3%	6.8%
Expected return on plan assets	7.7%	8.0%	8.1%	6.5%	6.5%	6.5%
Rate of compensation increase	3%–10%	3%–10%	3%–10%	—	—	—
Weighted-average assumptions used to determine benefit obligations, end of the year:						
Discount rate	5.3%	5.6%	6.1%	5.6%	5.8%	6.3%
Rate of compensation increase	3%–10%	3%–10%	3%–10%			

The expected rate of return on U.S. plan assets was determined by examining the annualized rates of return over the past five and ten year periods for the major U.S. stock and bond indexes and the estimated long-term asset mix of the plan assets of 55%–65% stocks and 35%–45% bonds, including cash equivalents ("fixed income securities"). Since the long-term average annualized return is approximately 9%–11% for stocks and 5%–7% for fixed income securities, the expected long-term weighted average return was estimated to be 8.5%

for the U.S. pension plans in 2005 and 2004. This return is based on an assumed allocation of assets of 62% stocks and 38% in fixed income securities, with long-term investment returns of 10% and 6%, respectively. The expected long-term weighted average return on all of our pension plans, including the U.S. plans, was 7.7% and 8.0% 2005 and 2004, respectively. For postretirement plans, all of which are assets held in the U.S., the expected rate of return was 6.5% in 2005 and 2004, based on the same investment return

assumptions and an assumed asset allocation of 55% in stocks and 45% fixed income securities in 2005 and 2004. The investment strategy for our worldwide benefit plan assets is to maintain broadly-diversified portfolios of stocks, bonds and money market instruments that, along with periodic plan contributions, provide the necessary liquidity for ongoing benefit obligations.

The expected return on non-U.S. plan assets is also based on the historical rates of return of the

various asset classes in each country and the corresponding asset mix. In the Netherlands, where we have our largest non-U.S. pension plan, the assumed rate of return was 6.25% in 2005. This return is based on assumed rates of return of 9% for stocks and 5% for fixed income securities and an assumed asset allocation of 31% stocks and 69% fixed income securities.

	Pension Plans			Postretirement Plans		
	2005	2004	2003	2005	2004	2003
Change in benefit obligation:						
Benefit obligation at January 1	\$ 646.2	\$ 565.4	\$ 489.1	\$ 248.6	\$ 271.5	\$ 253.6
Addition of plans	—	2.1	0.7	—	—	—
Service cost	21.4	14.4	12.5	1.3	1.0	1.4
Interest cost	41.3	34.7	32.5	13.7	14.3	16.6
Amendments	2.4	(0.1)	(0.2)	—	—	—
Acquisitions	137.4	—	18.2	—	—	2.7
Translation difference	(29.0)	10.2	16.1	—	0.1	0.1
Actuarial gains/(losses)	42.2	44.5	21.2	14.9	(15.7)	20.1
Employee contributions	1.4	0.9	0.5	4.0	3.4	2.6
Benefits paid	(31.8)	(25.9)	(25.2)	(24.4)	(26.0)	(25.6)
Curtailments/Settlements	(1.0)	—	—	—	—	—
Benefit obligation at December 31	\$ 830.5	\$ 646.2	\$ 565.4	\$ 258.1	\$ 248.6	\$ 271.5
Accumulated benefit obligation at December 31	\$ 769.7	\$ 617.3	\$ 544.2	\$ —	\$ —	\$ —
Change in plan assets:						
Fair value of plan assets at January 1	\$ 485.3	\$ 430.5	\$ 350.0	\$ 71.6	\$ 74.6	\$ 70.5
Addition of multiple plans	—	—	0.3	—	—	—
Actual return on plan assets	39.1	39.2	52.5	3.0	3.8	8.3
Company contributions	14.4	32.2	27.5	15.9	15.8	18.7
Employee contributions	1.4	0.9	0.5	4.0	3.4	2.7
Acquisitions	65.8	—	10.7	—	—	—
Translation difference	(20.0)	8.4	14.2	—	—	—
Benefits paid	(31.3)	(25.9)	(25.2)	(24.3)	(26.0)	(25.6)
Fair value of plan assets at December 31	\$ 554.7	\$ 485.3	\$ 430.5	\$ 70.2	\$ 71.6	\$ 74.6
Funded status:	\$ (275.8)	\$ (160.9)	\$ (134.9)	\$ (187.9)	\$ (177.0)	\$ (196.9)
Unrecognized actuarial losses	241.3	212.4	174.1	37.3	20.6	35.0
Unrecognized prior service cost	0.7	0.9	0.3	(63.9)	(74.5)	(85.1)
Other contributions	0.7	—	—	—	—	—
Unrecognized net transition obligation	4.0	—	—	—	—	—
Net amount recognized	\$ (29.1)	\$ 52.4	\$ 39.5	\$ (214.5)	\$ (230.9)	\$ (247.0)
Amounts recognized in the consolidated balance sheets consists of:						
Prepaid benefit cost	\$ 15.7	\$ 24.1	\$ 10.6	\$ —	\$ —	\$ —
Accrued benefit cost	(239.7)	(147.9)	(118.1)	(214.5)	(230.9)	(247.0)
Intangible asset	5.4	5.6	6.2	—	—	—
Accumulated other comprehensive income, exclusive of deferred taxes	189.5	170.6	140.8	—	—	—
Net amount recognized	\$ (29.1)	\$ 52.4	\$ 39.5	\$ (214.5)	\$ (230.9)	\$ (247.0)

The accrued postretirement benefit cost recognized in the consolidated balance sheets at December 31, 2005 and 2004 includes \$20.0 in accrued expenses at each date with the balance reported in pension and other postretirement benefit liabilities.

We recorded a non-cash after-tax minimum pension liability adjustment charge of \$7.1 and \$11.5 to Other Comprehensive Income in 2005 and 2004, respectively, and a credit of \$1.2 in 2003. The charges to Other Comprehensive Income did

not trigger any special funding requirements. As of December 31, 2005, \$4.2 was owed to one of our U.S. pension plans and is due on or before September 15, 2006.

The assumed rate of future increases in the per capita cost of healthcare benefits (healthcare cost trend rate) is 9.0% in 2006, decreasing to ultimate trend of 5.0% in 2010. The healthcare cost trend rate has a significant effect on the reported amounts of accumulated postretirement benefit

obligation ("APBO") and related expense. A 1.0% change in assumed health care cost trend rates would have the following effect:

	2005		2004	
	1% Increase	1% Decrease	1% Increase	1% Decrease
Approximate effect on the total of service and interest cost components of other postretirement benefit cost	\$ 1.5	\$ (1.2)	\$ 1.5	\$ (1.2)
Approximate effect on accumulated postretirement benefit obligation	\$24.8	\$(21.4)	\$23.9	\$(21.2)

The following information is presented for those plans with an accumulated benefit obligation in excess of plan assets:

	U.S. Plans		Non-U.S. Plans		Total	
	2005	2004	2005	2004	2005	2004
December 31,						
Projected benefit obligation	\$(544.5)	\$(506.2)	\$(201.1)	\$(68.4)	\$(745.6)	\$(574.6)
Accumulated benefit obligation	(524.0)	(489.0)	(168.9)	(63.8)	(692.9)	(552.8)
Fair value of plan assets	369.6	369.9	107.5	48.9	477.1	418.8

The asset allocation for our U.S. pension plans and postretirement plans at the end of 2005 and 2004, and the target allocation for 2006, by asset category, are as follows:

Asset Category	U.S. Pension Plans		
	Target Allocation	Percentage of Plan Assets at Year End	
	2006	2005	2004
Equity Securities	66%	67%	63%
Fixed Income	34%	33%	37%
Total	100%	100%	100%

Asset Category	Postretirement Plans		
	Target Allocation	Percentage of Plan Assets at Year End	
	2006	2005	2004
Equity Securities	55%	55%	55%
Fixed Income	45%	45%	45%
Total	100%	100%	100%

Asset Category	Non-U.S. Pension Plans		
	Target Allocation	Percentage of Plan Assets at Year End	
	2006	2005	2004
Equity Securities	41%	37%	41%
Fixed Income	47%	53%	52%
Cash and other	12%	10%	7%
Total	100%	100%	100%

The total fair value of U.S. pension and postretirement plan assets was \$439.8 and \$441.5 at December 31, 2005 and 2004. We use a

combination of active and passive stock and bond managers to invest the assets of pension and postretirement plans. The managers are selected based on an analysis of, among other things, their historical investment results, frequency of management turnover, cost structure, and assets under management. Assets are periodically reallocated among the investment managers to maintain the appropriate asset mix and occasionally transferred to new or existing managers in the event that a manager is terminated.

The following table reflects expected cash flows for the U.S. pension and postretirement benefit plans:

Expected Employer Contributions	Pension Plans	Postretirement Plans
2006	\$10.2	\$19.3

The following table reflects total benefits expected to be paid from the plan and / or our assets:

Expected Benefit Payments	Pension Benefits	Postretirement Benefits Prior to Medicare Part D Subsidy	Postretirement Benefits Anticipated Medicare Part D Subsidy
2006	\$ 23.6	\$ 22.3	\$ 3.0
2007	24.7	22.9	3.2
2008	25.8	23.1	3.3
2009	27.2	23.2	3.4
2010	28.7	23.3	3.5
2011-2015	174.1	114.2	18.5

The following table reflects the expected cash flows for the non-U.S. plans:

Expected Employer Contributions	Pension Plans	Postretirement Plans
2006	\$13.6	\$0.1

The following table reflects the total benefits expected to be paid from the plans and/or our assets:

Expected Benefit Payments	Pension Benefits	Postretirement Benefits
2006	\$ 8.2	\$0.1
2007	7.6	0.1
2008	9.0	0.1
2009	9.1	0.1
2010	9.8	0.1
2011-2015	46.0	0.8

We also sponsor various defined contribution retirement plans in a number of countries, consisting primarily of savings, profit growth and profit sharing plans. Contributions to the savings plans are based on matching a percentage of employees' contributions. Contributions to the profit growth and profit sharing plans are generally based on our financial performance. Amounts expensed related to these plans are as follows:

	2005	2004	2003
U.S.			
Profit Growth Sharing	\$ 3.0	\$ 9.1	\$ 5.5
Savings Plan	8.0	7.0	6.1
Total	\$11.0	\$16.1	\$11.6
Non-U.S.			
Others	\$ 2.7	\$ 1.2	\$ 1.2

We also sponsor post employment plans that, in certain circumstances, provide salary continuation, disability related benefits, severance pay and continuation of health care coverage during the period after employment but before retirement.

Certain of our benefit plans provide for enhanced benefits in the event of a "change of control" as defined in the plans.

14. OTHER

Following are our accrued expenses:

December 31,	2005	2004
Employee benefits	\$ 18.2	\$ 30.1
Other postretirement employee benefits	20.0	20.0
Salaries and wages	45.1	19.1
Taxes other than income taxes	8.9	7.2
Environmental	7.5	10.0
Interest	12.5	7.8
Restructuring costs	10.2	0.1
Customer rebates	18.3	4.4
All other	77.6	79.4
Total	\$218.3	\$178.1

The balance in due from related party of \$8.0 represents amounts to be received from UCB for certain preacquisition tax liabilities which we have or will pay in connection with the acquisition of Surface Specialties. Additionally, in connection with certain transition services agreements entered into with UCB in connection with the acquisition of Surface Specialties, included in accrued expenses at December 31, 2005 are \$0.8 related to such agreements. Through December 31, 2005, results of operations reflect expenses of \$12.5 recognized under these agreements.

15. COMMON STOCK

We are authorized to issue 150 million shares of common stock with a par value of \$.01 per share, of which 46,298,828 shares were outstanding at December 31, 2005. A summary of changes in common stock issued and treasury stock is presented below.

	Common Stock	Treasury Stock
Balance at December 31, 2002	48,132,640	9,332,671
Purchase of treasury stock	—	838,200
Issuance pursuant to stock option plan	—	(1,079,792)
Awards of performance stock and restricted stock	—	(80,731)
Forfeitures and deferrals of stock awards	—	129,549
Balance at December 31, 2003	48,132,640	9,139,897
Purchase of treasury stock	—	388,300
Issuance pursuant to stock option plan	—	(1,217,487)
Awards of performance stock and restricted stock	—	(64,654)
Forfeitures and deferrals of stock awards	—	51,807
Balance at December 31, 2004	48,132,640	8,297,863
Issuance related to acquisition of Surface Specialties	—	(5,772,857)
Issuance pursuant to stock option plan	—	(688,736)
Awards of performance stock and restricted stock	—	(53,345)
Forfeitures and deferrals of stock awards	—	50,887
Balance at December 31, 2005	48,132,640	1,833,812

Treasury stock, when reissued, is relieved at the average cost of the shares in treasury.

In January 2004, the Board of Directors approved the initiation of a common stock quarterly cash dividend program. During 2005 and 2004, four quarterly cash dividends of \$0.10 per share were declared and paid totaling \$17.8 and \$15.7, respectively. No cash dividends on common shares were declared or paid during 2003.

On February 9, 2006, the Board of Directors declared a quarterly cash dividend of \$0.10 per

common share, payable on March 15, 2006 to stockholders of record as of February 27, 2006.

In March 2003, we announced an authorization to repurchase up to an additional \$100.0 of our outstanding common stock. Repurchases were made from time to time on the open market or in private transactions and the shares obtained under this authorization are anticipated to be utilized for stock option plans, benefit plans and other corporate purposes. During 2004, we repurchased 388,300 shares of our common stock at a cost of \$13.1. During 2003, we repurchased 838,200 shares of our stock at a cost of \$27.7 that completed the previous stock repurchase authorization and included \$18.1 under the new authorization. In connection with the acquisition of Surface Specialties, we suspended the stock buy-back program and do not anticipate making future stock buy-backs for at least two years from the closing date in order to maximize the funds available for debt service and other corporate purposes.

Stock Award and Incentive Plan: The 1993 Stock Award and Incentive Plan (the "1993 Plan") provides for grants of a variety of awards, such as stock options (including incentive stock options and nonqualified stock options), restricted stock (including performance shares), stock appreciation rights (including those settled with common shares) and deferred stock awards and dividend equivalents. In addition, automatic formula grants of restricted stock and nonqualified stock options are awarded to non-employee directors. At December 31, 2005, there are approximately 6,889,999 shares reserved for issuance under the 1993 Plan.

We have utilized the stock option component of the 1993 Plan to provide for the granting of nonqualified stock options at 100% of the market price on the date the option is granted. Options are generally exercisable in cumulative installments of 33 1/3% per year commencing one year after the date of grant and annually thereafter, with contract lives of generally 10 years from the date of grant.

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A summary of stock options activity is presented below.

	2005		2004		2003	
	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Shares under option:						
Outstanding at beginning of year	5,344,434	\$30.47	6,320,110	\$28.31	6,692,689	\$26.15
Granted	534,900	47.61	545,070	37.14	873,600	27.06
Exercised	(688,736)	25.88	(1,217,487)	20.20	(1,079,792)	13.44
Forfeited	(52,675)	38.88	(303,259)	38.57	(166,387)	31.68
Outstanding at end of year	5,137,923	\$35.45	5,344,434	\$30.47	6,320,110	\$28.31
Options exercisable at end of year	4,036,177	\$30.89	4,049,069	\$30.40	4,687,172	\$28.64

The following table summarizes information about stock options outstanding and exercisable at December 31, 2005:

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Outstanding	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Number Exercisable	Weighted Average Price
\$ 6.46	1,859	2.36	\$ 6.46	1,859	\$ 6.46
20.44	593,180	3.06	20.44	593,180	20.44
23.31-28.56	1,810,550	5.40	25.28	1,566,951	25.05
29.56-35.09	676,752	5.12	33.25	673,416	33.25
36.25-38.62	523,231	7.86	37.18	186,720	37.29
40.00-44.50	620,451	1.15	40.28	620,451	40.28
46.94-49.39	901,400	6.09	47.74	384,600	47.94
53.29-55.00	10,500	3.34	54.76	9,000	55.00
\$ 6.46-55.00	5,137,923	4.95	\$ 35.45	4,036,177	\$ 30.89

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As provided under the 1993 Plan, we have also issued restricted stock and performance stock. Restricted shares are subject to certain restrictions on ownership and transferability that lapse upon vesting. Performance share payouts are based on the attainment of certain financial performance objectives and may vary depending on the degree to which the performance objectives are met. Performance shares awarded in 2003, 2004 and 2005 relate to the 2005, 2006 and 2007 performance periods, respectively. The total amount of stock-based compensation expense recognized for restricted stock and performance stock was \$2.7 in 2005, \$4.6 in 2004 and \$2.0 in 2003. A summary of restricted stock and performance stock activity is as follows:

	2005	2004	2003
Outstanding awards – beginning of year	210,401	230,580	297,655
New awards granted	53,345	65,204	80,731
Shares with restrictions lapsed ⁽¹⁾	(54,006)	(15,159)	(13,739)
Restricted shares forfeited	(5,000)	(70,224)	(134,067)
Outstanding awards – end of year	204,740	210,401	230,580
Weighted average market value of new awards on award date	\$ 47.92	\$ 36.84	\$ 26.93

⁽¹⁾ Shares with restrictions that lapsed in each period above include shares deferred by certain participants. We issued these participants equivalent deferred stock awards that will be distributed in the form of shares of common stock, generally following termination of employment.

The compensation costs that have been charged against income for restricted stock and performance stock awards have been noted above. The effects of applying the fair value method provided under SFAS No. 123 are shown in Note 1 and are not necessarily indicative of future amounts.

In the event of a “change of control” (as defined in the 1993 Plan), (i) any award under the 1993 Plan carrying a right to exercise that was not previously exercisable and vested will become fully exercisable and vested, (ii) the restrictions, deferral limitations, payment conditions and forfeiture applicable to any other award granted under the 1993 Plan will lapse and such awards will be deemed fully vested and (iii) any performance

conditions imposed with respect to awards shall be deemed to be fully achieved.

The fair value of options granted before January 1, 2005 was estimated on the date of grant using the Black-Scholes option pricing model with the following weighted average assumptions:

	2004	2003
Expected life (years)	5.7	5.6
Expected volatility	46.6%	47.3%
Expected dividend yield	1.0%	–
Risk-free interest rate	3.4%	2.9%
Weighted average fair value of options granted during the year	\$ 16.21	\$ 12.69

For stock options granted after January 1, 2005, the fair value of each option award is estimated on the date of grant using a binomial-lattice option valuation model. The binomial-lattice model considers characteristics of fair value option pricing that are not available under the Black-Scholes model. Similar to the Black-Scholes model, the binomial model takes into account variables such as volatility, dividend yield rate, and risk free interest rate. However, in addition, the binomial model considers the contractual term of the option, the probability that the option will be exercised prior to the end of its contractual life, and the probability of termination or retirement of the option holder in computing the value of the option. For these reasons, we believe that the binomial-lattice model provides a fair value that is more representative of actual experience and future expected experience than the value calculated in previous years, using Black-Scholes. The assumptions for the year ended December 31, 2005 are noted in the following table:

	2005
Expected life (years)	5.8
Expected volatility	38.5%
Expected dividend yield	0.84%
Range of risk-free interest rate	2.1%–4.2%
Weighted average fair value per option granted during the year	\$ 17.78

16. PREFERRED STOCK

We are authorized to issue 20 million shares of preferred stock with a par value of \$.01 per share in one or more classes or series with rights and

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privileges as adopted by the Board of Directors. There were no shares of preferred stock outstanding at December 31, 2005 and 2004.

As of December 17, 1993, we had issued to Cyanamid, a subsidiary of Wyeth, eight million shares of preferred stock in conjunction with our spin-off from Cyanamid. Through September, 2004, only 4,000 shares of Series C Cumulative Preferred Stock (the "Series C Stock") had remained outstanding. The Series C Stock, which had a redemption value of \$25 per share, was redeemed on September 30, 2004 for \$10.0 in cash. A charge to net earnings available to common stockholders of \$9.9 was recorded as a premium paid to redeem preferred stock. The \$10.0 payment was not tax deductible. We also settled a series of disputed matters with Wyeth at a cost of \$2.0 which was recorded during 2004 in other income (expense), net. The Series C shares were subsequently retired. The Series C Stock had an annual dividend of \$1.83 per share (7.32%).

17. OPERATIONS BY SEGMENT AND GEOGRAPHIC AREAS AND IDENTIFIABLE ASSETS

Segments: We have restated segment information for all periods presented in order to reflect our current organizational structure as we announced in October 2005.

Cytec Performance Chemicals includes our water treatment chemicals, mining chemicals, phosphine and phosphorous specialties, polymer additives and specialty additives, urethanes, polyurethanes and pressure sensitive adhesives product lines. Cytec Surface Specialties includes low energy-cured (Radcure) resins, powder coating resins and liquid coating resins which includes various product lines such as water-borne resins and solvent based resins. Cytec Engineered Materials principally includes advanced composites and film adhesives. Building Block Chemicals principally includes acrylonitrile, hydrocyanic acid, acrylamide, sulfuric acid and melamine.

The accounting policies of the reportable segments are the same as those described in Note 1. All intersegment sales prices are cost based. We evaluate the performance of our operating segments primarily based on earnings from operations of the respective segment.

Following is selected information in relation to our continuing operations for the periods indicated:

	Cytex Performance Chemicals	Cytex Surface Specialties	Cytex Engineered Materials	Building Block Chemicals	Total Segments
2005					
Net sales to external customers	\$855.8	\$1,244.1	\$ 541.6	\$284.2	\$2,925.7
Intersegment net sales	5.6	—	—	85.3	90.9
Total net sales	861.4	1,244.1	541.6	369.5	3,016.6
Earnings from operations	56.6	22.0	103.0	5.7	187.3
Percentage of sales	6.6%	1.8%	19.0%	1.5%	6.2%
Total assets	864.6	1,970.5	532.2	192.0	3,559.3
Capital expenditures	46.2	27.9	19.3	10.9	104.3
Depreciation and amortization	38.0	58.6	11.0	24.4	132.0
2004					
Net sales to external customers	\$712.7	\$ 261.0	\$ 487.0	\$260.6	\$1,721.3
Intersegment net sales	5.0	—	—	85.0	90.0
Total net sales	717.7	261.0	487.0	345.6	1,811.3
Earnings from operations	57.5	28.7	83.4	15.6	185.2
Percentage of sales	8.0%	11.0%	17.1%	4.5%	10.2%
Total assets	713.0	165.0	515.4	189.7	1,583.1
Capital expenditures	43.0	12.6	19.1	12.2	86.9
Depreciation and amortization	37.5	13.7	10.7	25.5	87.4
2003					
Net sales to external customers	\$623.6	\$ 228.4	\$ 408.7	\$211.1	\$1,471.8
Intersegment net sales	—	—	—	65.7	65.7
Total net sales	623.6	228.4	408.7	276.8	1,537.5
Earnings from operations	35.7	23.7	66.0	21.9	147.3
Percentage of sales	5.7%	10.4%	16.1%	7.9%	9.6%
Total assets	612.9	214.6	478.9	197.5	1,503.9
Capital expenditures	51.2	12.9	18.3	10.0	92.4
Depreciation and amortization	36.5	13.8	11.3	27.3	88.9

The following table provides a reconciliation of selected segment information to corresponding amounts contained in our consolidated financial statements:

	2005	2004	2003
Net sales:			
Net sales from segments	\$3,016.6	\$1,811.3	\$1,537.5
Elimination of intersegment revenue	(90.9)	(90.0)	(65.7)
Total consolidated net sales	\$2,925.7	\$1,721.3	\$1,471.8
Earnings from operations:			
Earnings from segments ⁽¹⁾	\$ 187.3	\$ 185.2	\$ 147.4
Corporate unallocated ⁽²⁾	(26.8)	(17.5)	(3.3)
Total consolidated earnings from operations	\$ 160.5	\$ 167.7	\$ 144.1
Total assets:			
Assets from segments	\$3,559.3	\$1,583.1	
Other assets ⁽³⁾	251.2	668.5	
Total consolidated assets	\$3,810.5	\$2,251.6	

(1) Includes \$37.0 write-off of acquired in-process research and development costs and \$20.8 representing the excess of the fair market value of the finished goods inventory of the acquired business over normal manufacturing costs (see Note 2).

(2) Includes \$16.8 of restructuring charges in 2005 (see Note 3), and \$8.0 in 2004 relating to the settlement of a class action law suit on behalf of purchasers of carbon fiber and other related matters (see Note 11).

(3) Includes cash and cash equivalents at December 31, 2005 and 2004 of \$68.6 and \$323.8, respectively.

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Operations by Geographic Areas: Net sales to unaffiliated customers presented below are based upon the sales destination, which is consistent with how we manage our businesses. U.S. exports included in net sales are based upon the sales destination and represent direct sales of U.S. based entities to unaffiliated customers outside of the United States. Earnings from operations are also based upon destination and consist of total net sales less operating expenses. Identifiable assets are those assets used in our operations in each geographic area. Unallocated assets are primarily cash and cash equivalents, miscellaneous receivables, construction in progress and the fair values of derivatives.

	2005	2004	2003
Net Sales			
United States	\$1,095.3	\$ 802.4	\$ 719.7
Other Americas	257.4	188.0	151.6
Asia / Pacific	401.7	261.9	211.1
Europe, Middle East and Africa	1,171.3	469.0	389.4
Total	\$2,925.7	\$1,721.3	\$1,471.8
U.S. exports included in net sales above			
Other Americas	\$ 82.1	\$ 70.7	\$ 47.8
Asia / Pacific	88.7	102.7	85.2
Europe, Middle East and Africa	90.6	61.0	53.6
Total	\$ 261.4	\$ 234.4	\$ 186.6
Earnings from operations			
United States ⁽¹⁾	\$ 17.4	\$ 69.7	\$ 58.3
Other Americas	48.7	31.2	27.3
Asia / Pacific	39.5	30.3	22.0
Europe, Middle East and Africa	54.9	36.5	36.5
Total	\$ 160.5	\$ 167.7	\$ 144.1
Identifiable assets			
United States	\$1,576.5	\$1,001.9	
Other Americas	183.6	148.1	
Asia and Pacific	223.3	82.7	
Europe, Middle East and Africa	1,482.5	306.5	
Total	3,465.9	1,539.2	
Equity in net assets of and advances to associated companies	20.3	85.5	
Unallocated assets ⁽²⁾	324.3	626.9	
Total assets	\$3,810.5	\$2,251.6	

(1) In 2005, includes a \$37.0 write-off in of acquired in-process research and development costs, \$20.8 representing the excess of the fair market value of the finished goods inventory of the acquired business over normal manufacturing costs (see Note 2), and \$8.0 in 2004 relating to the settlement of a class action lawsuit in the U.S. on behalf of purchasers of carbon fiber and other related matters (see Note 11).

(2) Includes cash and cash equivalents at December 31, 2005 and 2004 of \$68.6 and \$323.8, respectively.

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18. RISKS AND UNCERTAINTIES

Our revenues are largely dependent on the continued operation of our various manufacturing facilities. There are many risks involved in operating chemical manufacturing plants, including the breakdown, failure or substandard performance of equipment, operating errors, natural disasters, the need to comply with directives of, and maintain all necessary permits from, government agencies and potential terrorist attack. Our operations can be adversely affected by labor force shortages or work stoppages and events impeding or increasing the cost of transporting our raw materials and finished products. The occurrence of material operational problems, including but not limited to the above events, may have a material adverse effect on the productivity and profitability of a particular manufacturing facility. With respect to certain facilities, such events could have a material effect on our company as a whole.

Our operations are also subject to various hazards incident to the production of industrial chemicals. These include the use, handling, processing, storage and transportation of certain hazardous materials. Under certain circumstances, these hazards could cause personal injury and loss of life, severe damage to and destruction of property and equipment, environmental damage and suspension of operations. Claims arising from any future catastrophic occurrence at one of our locations may result in Cytec being named as a defendant in lawsuits asserting potentially large claims.

We perform ongoing credit evaluations of our customers' financial condition and generally require no collateral from our customers. We are exposed to credit losses in the event of nonperformance by counterparties on derivative instruments. The counterparties to these transactions are major financial institutions, thus we consider the risk of default to be minimal. We typically do not require collateral or other security to support potential credit risk.

International operations are subject to various risks which may not be present in U.S. operations. These risks include political instability, the possibility of expropriation, restrictions on royalties, dividends and remittances, instabilities of currencies, requirements for governmental approvals for new ventures and local participation in operations such as local equity ownership and workers' councils. Currency fluctuations between the U.S. dollar and the currencies in which we do business have caused and will continue to cause foreign currency transaction gains and losses, which may be material. While we do not currently believe that we are likely to suffer a material adverse effect on our results of operations in connection with our existing international operations, any of these events could have an adverse effect on our international operations in the future by reducing the demand for our products, affecting the prices at which we can sell our products or otherwise having an adverse effect on our operating performance.

REPORTS OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Cytec Industries Inc.:

We have audited the accompanying consolidated balance sheets of Cytec Industries Inc. and subsidiaries (the "Company") as of December 31, 2005 and 2004, and the related consolidated statements of income, stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 2005. In connection with our audits of the consolidated financial statements, we also have audited the consolidated financial statement schedule, "Schedule II – Valuation and Qualifying Accounts." These consolidated financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2005 and 2004, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2005, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the related financial statement

schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

As discussed in Note 11 to the consolidated financial statements, the Company adopted the provisions of Statement of Financial Accounting Standards No. 143, "Accounting for Asset Retirement Obligations," effective January 1, 2003.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of the Company's internal control over financial reporting as of December 31, 2005, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated February 27, 2006 expressed an unqualified opinion on management's assessment of, and the effective operation of, internal control over financial reporting. This report includes an explanatory paragraph stating that management excluded from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2005, the internal control over financial reporting of the Surface Specialties business of UCB S.A. associated with total assets of \$969 million as of December 31, 2005 and total revenues of \$1,075 million for the year ended December 31, 2005.

/S/ KPMG LLP

Short Hills, New Jersey
February 27, 2006

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The Board of Directors and Stockholders
Cytec Industries Inc.:

We have audited management's assessment, included in the accompanying Management's Report on Internal Control Over Financial Reporting, that Cytec Industries Inc. and subsidiaries (the "Company") maintained effective internal control over financial reporting as of December 31, 2005, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit

preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, management's assessment that the Company maintained effective internal control over financial reporting as of December 31, 2005, is fairly stated, in all material respects, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2005, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

The Company acquired the Surface Specialties business of UCB S.A. ("Surface Specialties") during the year ended December 31, 2005. Management excluded from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2005, Surface Specialties' internal control over financial reporting associated with total assets of \$969 million, and total revenues of \$1,075 million included in the consolidated financial statements of the Company as of and for the year ended December 31, 2005. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of Surface Specialties.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Cytec Industries Inc. and subsidiaries as of December 31, 2005 and 2004, and the related consolidated statements of income, stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 2005, and our report dated February 27, 2006 expressed an unqualified opinion on those consolidated financial statements.

/S/ KPMG LLP

Short Hills, New Jersey
February 27, 2006

QUARTERLY DATA (UNAUDITED)

(Dollars in millions, except per share amounts)	1Q	2Q	3Q	4Q	Year
2005					
Net sales	\$563.9	\$813.4	\$760.8	\$787.6	\$2,925.7
Gross profit ⁽¹⁾	123.6	174.3	161.2	152.9	612.0
Net earnings (loss)	(6.5)	11.9	35.4	18.3	59.1
Basic net earnings (loss) per share ⁽²⁾	\$ (0.16)	\$ 0.26	\$ 0.77	\$ 0.44	\$ 1.31
Diluted net earnings (loss) per share ⁽²⁾	\$ (0.16)	\$ 0.25	\$ 0.75	\$ 0.43	\$ 1.27
2004					
Net sales	\$415.2	\$422.0	\$433.5	\$450.6	\$1,721.3
Gross profit ⁽¹⁾	105.1	110.4	101.1	101.6	418.2
Net earnings available to common stockholders	33.2	31.2	10.5	46.2	121.1
Basic net earnings available to common stockholders per share ⁽²⁾	\$ 0.85	\$ 0.80	\$ 0.27	\$ 1.17	\$ 3.06
Diluted net earnings available to common stockholders per share ⁽²⁾	\$ 0.83	\$ 0.77	\$ 0.26	\$ 1.13	\$ 2.96

(1) Gross profit is derived by subtracting manufacturing cost of sales from net sales.

(2) The sum of the quarters may not equal the full year basic and diluted earnings per share since each period is calculated separately.

**ITEM 9.
CHANGES IN AND DISAGREEMENTS
WITH ACCOUNTANTS ON
ACCOUNTING AND FINANCIAL
DISCLOSURE**

Not applicable.

**ITEM 9A.
CONTROLS AND PROCEDURES**

**CONCLUSION REGARDING THE
EFFECTIVENESS OF DISCLOSURE CONTROLS
AND PROCEDURES**

An evaluation was carried out by our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) of the Exchange Act), as of December 31, 2005. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that our current disclosure controls and procedures are effective.

**MANAGEMENT'S REPORT ON INTERNAL
CONTROL OVER FINANCIAL REPORTING**

Our management is responsible for establishing and maintaining adequate internal controls over financial reporting, as defined in Rule 13a-15(f) of the Exchange Act. Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, an evaluation of the effectiveness of our internal controls over financial reporting was carried out. Management excluded from its evaluation an assessment of the internal controls over financial reporting for the Surface Specialties business, as described below. Management's evaluation was based on the criteria established in *Internal Control*

– *Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation, management has concluded that our internal controls over financial reporting were effective as of December 31, 2005.

On February 28, 2005, we acquired Surface Specialties from UCB SA. Management excluded from its assessment of the effectiveness of our internal control over financial reporting as of December 31, 2005, Surface Specialties' internal controls over financial reporting. As of December 31, 2005, total assets associated with Surface Specialties were \$969 million, representing 25% of our total assets. For the year ended December 31, 2005, total revenues associated with Surface Specialties were \$1,075 million, representing 37% of our total revenue.

ATTESTATION REPORT

Management's assessment of the effectiveness of internal controls over financial reporting as of December 31, 2005 has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report which is included herein.

CHANGES IN INTERNAL CONTROL

There were no changes in our internal controls over financial reporting during the fiscal quarter ended December 31, 2005 identified in the above-referenced evaluations that has materially affected, or is reasonably likely to materially affect, our internal controls over financial reporting.

**ITEM 9B.
OTHER INFORMATION**

Not applicable.

PART III
ITEM 10.
DIRECTORS AND EXECUTIVE
OFFICERS OF THE REGISTRANT

Set forth below is certain information concerning the executive officers of Cytec. Each such person serves at the pleasure of the Board of Directors of Cytec.

Name	Age	Positions
D. Lilley	59	Mr. Lilley is Chairman of the Board, President and Chief Executive Officer. He was elected Chairman in January 1999 and President and Chief Executive Officer in May 1998, having previously served as President and Chief Operating Officer from January 1997.
J. P. Cronin	52	Mr. Cronin is Executive Vice President and Chief Financial Officer, having previously served as Vice President and Chief Financial Officer from our inception in 1993 until he was elected an Executive Vice President in September 1996.
S. D. Fleming	47	Mr. Fleming has been President of Cytec Specialty Chemicals since October 2005. He was elected as an officer in September 2004. He previously served as President of Cytec Performance Specialties, Vice President, Phosphine and Mining Chemicals and other executive positions in our specialty chemicals businesses for more than four years.
S. C. Speak	48	Mr. Speak was elected as an officer in September 2004. He has been President of Cytec Engineered Materials since January 2002, having previously served as Vice President and General Manager, North America and Pacific Rim and other executive positions in Cytec Engineered Materials for more than two years.
W. N. Avrin	50	Mr. Avrin is Vice President, Corporate and Business Development and has held this position for more than five years.
D. M. Drillock	48	Mr. Drillock was elected Vice President, Controller and Investor Relations in April 2002. He previously served as Controller for more than four years.
J. E. Marosits	53	Mr. Marosits was elected Vice President, Human Resources in July 2002. For more than four years prior to that, he had been our Director, Human Resources for Building Block Chemicals and Corporate Manager, Labor Relations.
R. Smith	47	Mr. Smith was elected Vice President, General Counsel and Secretary effective January 1, 2002, having previously served as Assistant General Counsel for more than two years prior thereto.
T. P. Wozniak	52	Mr. Wozniak is Treasurer of Cytec and has held this position for more than five years.

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We have a specific Code of Ethics which is applicable to our chief executive officer, our chief financial officer, our chief accounting officer and our controller. This code sets forth certain of our expectations, including that the officers will act with honesty and integrity, will avoid actual and apparent conflicts of interest, will comply with all applicable laws, will disclose information that is complete and understandable and will act in good faith and responsibly. The Code also requires the prompt reporting of violations to the Chair of the Audit Committee. A current copy of the Code is available on our website accessible at www.Cytex.com. We will disclose information regarding any amendment to the Code or any waiver from any of its provisions on the same website. There have never been any waivers granted regarding our Code.

The remainder of the information required by this Item is incorporated by reference from the "Election of Directors" section of our definitive Proxy Statement for our 2006 Annual Meeting of Common Stockholders, dated March 20, 2006.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item is incorporated by reference from the "Executive Compensation," the "Employment and Severance Arrangements," the "Compensation under Retirement Plans," the "Compensation of Directors," the "Compensation and Management Development Committee Report," the "Equity Compensation Plan Information," and the "Performance Graph" sections of our definitive Proxy Statement for our 2006 Annual Meeting of Common Stockholders, dated March 20, 2006.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this Item is incorporated by reference from the "Cytex Stock Ownership by Directors & Officers" and the "Security Ownership of Certain Beneficial Owners" sections of our definitive Proxy Statement for our 2006 Annual Meeting of Common Stockholders, dated March 20, 2006.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information required by this Item is incorporated by reference from the "Certain Relationships and Related Transactions" section of our definitive Proxy Statement for our 2006 Annual Meeting of Common Stockholders, dated March 20, 2006.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this Item is incorporated by reference from the "Fees Paid to the Auditors" section of our definitive Proxy Statement for our 2006 Annual Meeting of Common Stockholders, dated March 20, 2006.

PART IV
ITEM 15.
EXHIBITS AND FINANCIAL
STATEMENT SCHEDULES

Schedules, other than "Schedule II – Valuation and Qualifying Accounts," are omitted because of the absence of the conditions under which they are required or because the information called for are included in the consolidated financial statements or notes thereto.

(a)(1) List of Financial Statements:

Cytec Industries Inc. and Subsidiaries
Consolidated Financial Statements
(Refer to Item 8):

Consolidated Balance Sheets as of
December 31, 2005 and 2004

Consolidated Statements of Income for
the Years ended December 31, 2005,
2004 and 2003

Consolidated Statements of Cash Flows
for the Years ended December 31, 2005,
2004 and 2003

Consolidated Statements of
Stockholders' Equity for the Years ended
December 31, 2005, 2004 and 2003

Notes to Consolidated Financial
Statements

Reports of Independent Registered
Public Accounting Firm

(a)(2) Cytec Industries Inc. and Subsidiaries
Financial Statement Schedules

Schedule II – Valuation and Qualifying
Accounts

(a)(3) Exhibits.

Exhibit No.	Description
3.1(a)	Certificate of Incorporation (incorporated by reference to exhibit 3.1(a) to Cytec's quarterly report on Form 10-Q for the quarter ended September 30, 1996).
3.1(b)	Certificate of Amendment to Certificate of Incorporation dated May 13, 1997 (incorporated by reference to exhibit 3.1(a) to Cytec's quarterly report on Form 10-Q for the quarter ended June 30, 1997).
3.1(c)	Conformed copy of the Cytec's certificate of incorporation, as amended (incorporated by reference to exhibit 3(c) to Cytec's registration statement on Form S-8, registration number 333-45577).
3.2	By-laws, as amended through January 22, 2002 (incorporated by reference to Exhibit 3.2 to Cytec's annual report on Form 10-K for the year ended December 31, 2001).
4.1	Form of Common Stock Certificate (incorporated by reference to exhibit 4.1 to Cytec's registration statement on Form 10).
4.2(a)	Indenture, dated as of March 15, 1998 between the Cytec and PNC Bank, National Association as Trustee (incorporated by reference to Exhibit 4.1 of Cytec's current report on Form 8-K, dated March 18, 1998).
4.2(b)	Supplemental Indenture, dated as of May 11, 1998 between the Cytec and PNC Bank National Association, as Trustee (incorporated by reference to Exhibit 4.2 to Cytec's quarterly report on Form 10-Q for the quarter ended March 31, 1998).

4.3	6.75% Global Note due March 15, 2008 (incorporated by reference to Exhibit 4.3 of Cytec's current report on Form 8-K dated March 18, 1998).	10.1(f)	Letter Amendment No. 1 to Credit Agreement dated as of November 18, 2005.
4.4	Stockholder's Agreement dated as of February 28, 2005 between Cytec and UCB SA (incorporated by reference to Exhibit 99.1 of Cytec's current report on Form 8-K dated March 4, 2005).	10.1(g)	Letter Amendment No. 2 to Credit Agreement dated as of December 31, 2005.
4.5	4.60% Senior Note due 2013 (incorporated by reference to Exhibit 4.2 to Cytec's quarterly report on Form 10-Q for the quarter ended June 30, 2003).	10.2	Executive Compensation Plans and Arrangements (incorporated by reference to exhibit 10.12 to Cytec's annual report on Form 10-K for the year ended December 31, 2003).
4.6	5.500% Senior Note due 2010 (incorporated by reference to Exhibit 4.1 to Cytec's current report on Form 8-K, dated October 4, 2005).	10.2(a)	1993 Stock Award and Incentive Plan, as amended through January 1, 2006.
4.7	6.000% Senior Note due 2015 (incorporated by reference to Exhibit 4.2 to Cytec's current report on Form 8-K, dated October 4, 2005).	10.2(b)	Form of Performance Stock Award/ Performance Cash Award Grant Letter (incorporated by reference to exhibit 10.12(b) to Cytec's annual report on Form 10-K for the year ended December 31, 1999).
10.1(a)	Five Year Term Loan Agreement dated as of February 15, 2005, among the Cytec, the banks named therein and Citigroup Global Markets, Inc., as lead arranger and book manager ("Term Agreement") (incorporated by reference to exhibit 99.2 to Cytec's current report on Form 8-K dated February 15, 2005).	10.2(c)	Rule No. 1 under 1993 Stock Award and Incentive Plan as amended through January 20, 2003 (incorporated by reference to exhibit 10.12(c) to Cytec's Annual Report on Form 10-K for the year ended December 31, 2002).
10.1(b)	Letter Amendment No. 1 to Term Agreement dated as of March 1, 2005.	10.2(d)(i)	Form of Stock Option Grant Letter (incorporated by reference to exhibit 10.13(d) of Cytec's annual report on Form 10-K for the year ended December 31, 1998).
10.1(c)	Letter Amendment No. 2 to Term Agreement dated as of November 11, 2005.	10.2(d)(ii)	Form of Stock Option Grant Letter used for grants to officers from January 21, 2002 through January 19, 2004 (incorporated by reference to Exhibit 10.12(d)(ii) to Cytec's annual report on Form 10-K for the year ended December 31, 2001).
10.1(d)	Letter Amendment No. 3 to Term Loan Agreement dated December 31, 2005.	10.2(d)(iii)	Form of Stock Option Grant Letter used for grants to officers from January 21, 2004 through February 8, 2006 (incorporated by reference to exhibit 10.12 to Cytec's annual report on Form 10-K for the year ended December 31, 2003).
10.1(e)	Five Year Credit Agreement dated as of February 15, 2005, among the Cytec, the banks named therein and Citigroup Global Markets, Inc., as lead arranger and book manager ("Credit Agreement") (incorporated by reference to exhibit 99.3 to Cytec's current report on form 8-K dated February 15, 2005).		

10.2(d)(iv)	Form of Performance Stock Award Grant Letter used for grants to officers from January 21, 2004 (incorporated by reference to exhibit 10.12 to Cytec's annual report on Form 10-K for the year ended December 31, 2003).	10.2(j)	Cytec Supplemental Employees Retirement Plan, as amended through April 13, 2000 (incorporated by reference to exhibit 10.12(k) to Cytec's quarterly report on Form 10-Q for the quarter ended June 30, 2000).
10.2(d)(v)	Form of common stock settled Stock Appreciation Rights ("SARs") Award letter used for grants to officers from February 9, 2006.	10.2(k)	Cytec Executive Supplemental Employees Retirement Plan, as amended through October 14, 1999 (incorporated by reference to exhibit 10.13(k) to Cytec's quarterly report on Form 10-Q for the quarter ended September 30, 1999).
10.2(d)(vi)	Form of Performance Cash Award letter used for grants to officers from February 9, 2006.		
10.2(e)	Rule No. 2, as amended through January 27, 1997, under 1993 Stock Award and Incentive Plan (incorporated by reference to exhibit 10.13(e) to Cytec's annual report on Form 10-K for the year ended December 31, 1996).	10.2(l)	Cytec Compensation Tax Equalization Plan (incorporated by reference to exhibit 10(G) to Cytec's quarterly report on Form 10-Q for the quarter ended September 30, 1994).
10.2(f)	Executive Income Continuity Plan, as amended through September 12, 2003 (incorporated by reference to exhibit 10.12(f) to Cytec's quarterly report on Form 10-Q for the quarter ended September 30, 2003).	10.2(m)	Cytec Supplemental Savings and Profit Sharing Plan, as amended and restated through July 22, 2003 (incorporated by reference to exhibit 4.4 to Cytec's Registration Statement on Form S-8, registration number 333-107221).
10.2(g)	Key Manager Income Continuity Plan, as amended through September 12, 2003 (incorporated by reference to exhibit 10.12(g) to Cytec's quarterly report on Form 10-Q for the quarter ended September 30, 2003).	10.2(n)	Amended and Restated Trust Agreement effective as of December 15, 1994 between the Cytec and Vanguard Fiduciary Trust Company, as successor trustee (incorporated by reference to exhibit 10.12(p) to Cytec's annual report on Form 10-K for the year ended December 31, 1999).
10.2(h)	Employee Income Continuity Plan, as amended through September 12, 2003 (incorporated by reference to exhibit 10.12(h) to Cytec's quarterly report on Form 10-Q for the quarter ended September 30, 2003).	10.2(o)	Deferred Compensation Plan as amended through December 9, 2002 (incorporated by reference to exhibit 10.12(o) to Cytec's annual report on Form 10-K for the year ended December 31, 2002).
10.2(i)	Cytec Excess Retirement Benefit Plan, as amended through May 11, 2000 (incorporated by reference to exhibit 10.12(j) to Cytec's quarterly report on Form 10-Q for the quarter ended June 30, 2000).	10.2(p)	Rule No. 4 under 1993 Stock Award and Incentive Plan as amended.

- 10.3 Relocation Agreement for Shane Fleming dated December 11, 2005.
- 10.4 Restricted Stock Award Agreement for James P. Cronin dated March 1, 2005.
- 10.5 Restricted Stock Award Agreement for William N. Avrin dated March 1, 2005.
- 10.6 Settlement Agreement by and between Cytec Surface Specialties NV and Benoit Van Assche dated November 30, 2005.
- 10.7 Employment Agreement by and between Benoit Van Assche and UCB dated June 29, 1998.
- 10.8 Supplementary Pension for Collective Life Management Code for Cytec Surface Specialties NV dated November 24, 2005.
- 10.9 Group Insurance Precautionary Plan for Cytec Surface Specialties NV dated August 8, 2005.
- 12 Computation of Ratio of Earnings to Fixed Charges.
- 21 Subsidiaries of the Company.
- 23 Consent of KPMG LLP.
- 24(a-i) Powers of Attorney of J. E. Akitt, C.A. Davis, A.G. Fernandes, L. L. Hoynes, Jr., B. C. Johnson, W. P. Powell, J. R. Satrum, R. P. Sharpe and J. R. Stanley.
- 31.1 Certification of David Lilley, Chief Executive Officer pursuant to Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2 Certification of James P. Cronin, Chief Financial Officer pursuant to Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1 Certification of David Lilley, Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 32.2 Certification of James P. Cronin, Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, we have duly caused this report to be signed on our behalf by the undersigned, thereunto duly authorized.

CYTEC INDUSTRIES INC.

(Registrant)

DATE: February 28, 2006

By: /S/ David Lilley

D. Lilley
Chairman, President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on our behalf and in the capacities and on the dates indicated.

DATE: February 28, 2006

/S/ David Lilley

D. Lilley
Chairman, President and Chief Executive Officer

DATE: February 28, 2006

/S/ J. P. Cronin

J. P. Cronin, Executive Vice President,
Chief Financial and Accounting Officer

*

J. E. Akitt, Director

*

C.A. Davis, Director

*

A.G. Fernandes, Director

*

L. L. Hoynes, Jr., Director

*By: /S/ R. Smith

*

B. C. Johnson, Director

Attorney-in-Fact

*

W. P. Powell, Director

*

J. R. Satrum, Director

*

R. P. Sharpe, Director

*

J. R. Stanley, Director

DATE: February 28, 2006

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**EXHIBIT 31.1
CERTIFICATIONS**

I, David Lilley, certify that:

1. I have reviewed this annual report on Form 10-K of Cytec Industries Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

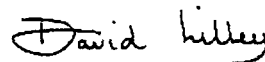
c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.



David Lilley
Chairman, President and
Chief Executive Officer

February 28, 2006

EXHIBIT 31.2 CERTIFICATIONS

I, James P. Cronin, certify that:

1. I have reviewed this annual report on Form 10-K of Cytec Industries Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.



James P. Cronin
Executive Vice President and
Chief Financial Officer

February 28, 2006

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SCHEDULE II – VALUATION AND QUALIFYING ACCOUNTS

Years Ended December 31, 2005, 2004 and 2003

(in millions)

Description	Balance 12/31/2004	Additions or (deductions) charged or (credited) to expenses	Other additions or (deductions)	Balance 12/31/2005
Reserves deducted from related assets:				
Doubtful accounts receivable	\$ 6.7	\$0.9	\$ 0.2 ⁽¹⁾	\$ 7.8
Deferred tax asset valuation allowance	\$12.2	\$2.2	\$ 8.8 ⁽²⁾	\$ 23.2
Environmental accruals	\$70.7	\$1.7	\$30.5 ⁽³⁾	\$102.9

(1) Principally bad debts written off, less recoveries.

(2) Primarily attributable to the Surface Specialties acquisition

(3) Environmental remediation spending net of \$6.6, \$(3.1) currency exchange and \$40.2 related to the Surface Specialties acquisition.

Description	Balance 12/31/2003	Additions or (deductions) charged or (credited) to expenses	Other additions or (deductions)	Balance 12/31/2004
Reserves deducted from related assets:				
Doubtful accounts receivable	\$ 7.6	\$ 0.4	\$(1.3) ⁽¹⁾	\$ 6.7
Deferred tax asset valuation allowance	\$ 4.6	—	\$ 7.6 ⁽²⁾	\$12.2
Environmental accruals	\$79.6	\$(0.1)	\$(8.8) ⁽³⁾	\$70.7

(1) Principally bad debts written off, less recoveries.

(2) Primarily attributable to U. S. state income tax net operating loss and credit carryforwards.

(3) Environmental remediation spending, net of \$0.6 currency exchange.

Description	Balance 12/31/2002	Additions or (deductions) charged or (credited) to expenses	Other additions or (deductions)	Balance 12/31/2003
Reserves deducted from related assets:				
Doubtful accounts receivable	\$ 8.8	\$0.2	\$ (1.4) ⁽¹⁾	\$ 7.6
Deferred tax asset valuation allowance	—	—	\$ 4.6 ⁽²⁾	\$ 4.6
Environmental accruals	\$83.7	\$1.8	\$ (5.9) ⁽³⁾	\$79.6
Total investments, advances and other assets	\$17.0	—	\$(17.0) ⁽⁴⁾	\$ —

(1) Principally bad debts written off, less recoveries.

(2) Attributable to U. S. state income tax net operating loss carryforwards.

(3) Environmental remediation spending of \$9.3, net of \$1.7 currency exchange and \$1.7 for the gross up of a certain liability and related receivable

(4) Liquidation of associated company and write-off of preferred stock of company in bankruptcy both of which were fully reserved.

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Board of Directors and Committees of the Board

David Lilley
Chairman of the Board,
President, and Chief Executive Officer

John E. Akitt ^{2, 3, 4}
Retired Executive Vice President,
Exxon Chemical Company;
Director, Georgia Gulf Corporation

Chris A. Davis ¹
General Partner, Forstmann Little & Co.,
Director, Rockwell Collins, Inc., Avial, Inc.,
IMG Worldwide Inc. and 24 Hour Fitness

Anthony G. Fernandes ^{1, 2, 4}
Retired Chairman, Chief Executive Officer,
and President, Philip Services Corporation;
Director, Baker Hughes Corporation,
Black and Veatch, and Tower Automotive, Inc.

Louis L. Hoynes, Jr. ⁴
Retired Executive Vice President and
General Counsel, Wyeth

Barry C. Johnson, Ph.D. ^{2, 3}
Dean, College of Engineering,
Villanova University
Director, Rockwell Automation, Inc.

William P. Powell ^{1, 4}
Managing Director,
William Street Advisors LLC;
Director, CONSOL Energy Inc. and
International Executive Service Corps

Jerry R. Satrum ^{1, 2}
Retired Chief Executive Officer,
Georgia Gulf Corporation
Director, Georgia Gulf Corporation

Raymond P. Sharpe
President and Chief Executive Officer,
Isola Group

James R. Stanley ^{3, 4}
Retired President and Chief Executive Officer,
Howmet International

¹ Audit Committee

² Compensation and Management Development Committee

³ Environmental, Health, and Safety Committee

⁴ Governance Committee

Corporate Officers

David Lilley*
Chairman of the Board,
President, and Chief Executive Officer

James P. Cronin*
Executive Vice President
and Chief Financial Officer

Shane D. Fleming*
President, Cytec Specialty Chemicals

Steven C. Speak*
President, Cytec Engineered Materials

William N. Avrin
Vice President, Corporate and
Business Development

David M. Drillock
Vice President, Controller and
Investor Relations

Joseph E. Marosits
Vice President, Human Resources

Roy Smith
Vice President, General Counsel,
and Secretary

Thomas P. Wozniak
Treasurer
* Executive Committee

Operations Management

Shane D. Fleming
President, Cytec Specialty Chemicals

Jaswant S. Gill
President, Building Block Chemicals

Steven C. Speak
President, Cytec Engineered Materials

Corporate Support

Richard T. Ferguson
Vice President, Taxes

Jeffrey C. Futterman
Vice President, Information Technology

Karen E. Koster
Vice President, Safety,
Health & Environment

Corporate Information

Our common stock is traded on the New York Stock Exchange under the symbol CYT.

The annual meeting of our stockholders will be held at 1:00 p.m. on May 2, 2006 at The Marriott at Glen Pointe, Teaneck, NJ 07666.

Stockholders of record as of March 10, 2006, will be entitled to vote at this meeting.

Shareholder Services
Mellon Investor Services LLC
Shareholder Relations Department
P.O. Box 3315
South Hackensack, NJ 07606-1915
800-851-9677
Website: www.melloninvestor.com

All product names appearing in capital letters are registered trademarks of or trademarks licensed to Cytec Industries Inc. or its subsidiaries throughout the world.

Independent Registered Public
Accounting Firm
KPMG LLP
150 John F. Kennedy Parkway
Short Hills, NJ 07078

A copy of our annual report on Form 10-K is attached. Copies of our quarterly reports on Form 10-Q, as filed with the Securities and Exchange Commission, are available without charge to stockholders upon request. Copies of exhibits attached to Forms 10-K and 10-Q will be made available at a charge. Requests should be made in writing to the Investor Relations Department at our Corporate headquarters or by calling Cytec Investor Relations at 800-44-CYTEC. For news releases, SEC filings, recent presentations or other information, please access the Company's website at www.cytec.com.

Except for the historical information and discussions contained herein, statements contained in this annual report may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Act of 1995. Achieving the results described in these statements involves a number of risks, uncertainties, and other factors that could cause actual results to differ materially, as discussed in Cytec's filings with the Securities and Exchange Commission, and on page 1 of the attached Form 10-K.

Cytec Industries Inc.
Five Garret Mountain Plaza
West Paterson, NJ 07424
973-357-3100
www.cytec.com

CYTEC

Technology ahead of its time

www.cytec.com

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CGL-486

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**THE
INDUSTRIAL DIRECTORY
OF NEW JERSEY**

1940 - 41

Compiled by
**BUREAU OF STATISTICS AND RECORDS
NEW JERSEY STATE DEPARTMENT OF LABOR
TRENTON, N. J.
JOHN J. TOOHEY, Jr., Commissioner**

Compiler and Editor
JAMES A. T. GRIBBIN
Deputy Commissioner of Labor
Chief, Bureau of Statistics and Records

Publisher
S. O. SAROKIN

PRICE \$10.00

UNION COUNTY (Continued)

Sonoco Products Co., paper tubes & spools.....	186
Southport Chemical Co., pharmaceutical preparations	4
Synply Corp., tile board & color panels.....	15
Synthetic Chemicals, Inc., soap powder.....	3
Thatcher Co., heating boilers	332
Welded Steel Tube Corp., welded steel tubing & fabricated parts	24
Widen Metal Goods Co., tools, dies, metal goods	14

GRASSELLI (part of Linden City).

Fire insurance rating C.	
Industries:	Employees
du Pont de Nemours, E. I., & Co., acids & heavy chemicals	767
General Aniline Wks., Inc., dyestuffs	960
Plaskon Co., plaskon molding compounds, synthetic resin (urea-formaldehyde type)	40

HILLSIDE (Township). Pop 18,524. Includes

Lyons Farms. Area in acres 1,750. Lehigh Valley R. R. Net valuation (1940) \$21,618,450. Tax rate \$4.86. Two banks.

Fire insurance rating C.

Industries:	Employees
Amersil Co., Inc., fused silica & fused quartz products	16
Armoboard Co., Inc., concrete units	2
Arrow Engineering Co., tools & dies	2
Barrett-Cravens Co., lift trucks, platforms, portable elevators, storage racks	9
Belinkoff Iron Wks., architectural & ornamental iron work	1
Bernstein, S., cleaning & dyeing	28
Breen Iron Wks., structural iron work.....	18
Bristol-Myers Co., toilet preparations & pharmaceuticals	774
Chemicals, Inc., finger nail polish	3
Chicago Bridge & Iron Wks., fabricators & erectors of structural steel, steel tanks & fabricated plate work	354
Consolidated Cleaners & Dyers	110
Furiness, Samuel, Mat Co., Inc., rubber mats	4
General Extrusion Corp., extruded metal products	36
Goeller, H. R., structural steel & ornamental iron fabrication & erection.....	43
Gussell Mfg. Co., hinges & spiral machinery	5
Hale, Joseph, concrete blocks	2
Hartig Engine & Mch. Co., special machinery & general machine work	7
Hatfield Wire & Cable Co., insulated wires & cables	550
Hebler, Wm. O., Co., assembly of gas analysis & temperature	4
Heil Co., truck bodies & tanks	90
Hillside Clothing Mfg. Co., ladies' sportswear	36
Hillside Lumber & Supply Co., millwork.....	13
Hillside Times Publ. Co., newspaper publ & prtg	5
International Milk Co., Inc., dairy products	63
Ironbound Box & Lumber Co., wooden boxes, crates, shooks, wood products, skid platforms, factory trucks, fork truck pallets	46
Jiffy Mfg. Co., packing & insulating materials	53

Merrill Shops, repairing of silverware.....	1
Mundet Cork Corp., cork & all cork products	275
Neill & Spanjer, lumber	17
Nelson Press, Inc.	6
Newark Eng. Co., special machinery, tools & dies	37
Overhead Door Co., overhead garage doors	42
Power Patents Co., airplane oil heaters, grease guns, engine superchargers, refractories	48
Reinhard-Mueller Co., printing	1
Star Tool & Mfg. Co., metal stamping.....	12
Stevens, W. M., sheet metal roofing, radiator cabinets	1
Sun Tube Corp., collapsible metal tubes.....	190
Supreme Cleaners & Dyers, Inc.	27
Trio Aluminum Foundry Co., aluminum castings	3
Union Plastics Co., Inc., molded plastics.....	63
York Insulation Co., Inc., asbestos covering	12

KENILWORTH (Boro). Pop 2,449. Nearest station Aldene on Rahway Valley R. R. and Central R. R. of N. J. Net valuation (1940) \$2,222,774. Tax rate \$6.85. Banking towns Cranford and Elizabeth.

Fire insurance rating E.

Industries:	Employees
American Laundry Machine Co., rebuilding laundry & dry cleaning machinery....	53
Carpenter Steel Co., stainless steel tubing	82
France-Campbell & Barling, grinding of natural resins	15
Gering Products, Inc., plastic materials.....	85
Heyman Mfg. Co., tools & dies	12
Kenilworth Button Mfg. Co., molding buttons & electrical parts	73
Kenilworth Washing Co., laundry	16
Langbein, Inc., sheet metal ducts for air conditioning, sheet metal work	3
Lock Joint Pipe Co., concrete pipe	70
Murdock, A. E., iron filings, powdered iron, metallic waterproofing, metallic floor hardener	4
National Tool & Die Co., plastic products	47
Papyrus Co., crepe papers, paper napkins	22
Protexol Corp., impregnating wood for fireproofing & wood preserving	8
Resin Processing Co., synthetic resins	10
Volco Wire Co., Inc.	52

LINDEN (City). Pop 23,927. Includes Grasselli, Tremley Point and Warners. Area in acres 7,238. Penna. R. R., Central R. R. of N. J. and Baltimore & Ohio R. R. Net valuation (1940) \$70,090,154. Tax rate \$3.35. Two banks.

Fire insurance rating C.

Industries:	Employees
Allen Industries, Inc., cotton jute, sisal pads, latexed pads	78
Allied Clothing Corp., men's clothing.....	2
Alloy Steel Products Corp., stainless steel valves & pipe fittings	21
American Cyanamid Co., fertilizers, industrial & mining chemicals, insecticides.....	1019
American Cyanamid & Chemical Corp., gypsum block, plank & plaster	233
Artistic Wire Products Co., fancy wire goods	60
Atlantic Romper Co., boys' wash suits.....	211

of New Jersey

1946

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UNION COUNTY (cont.)

HILLSIDE (cont.)

Hillside Times Publishing Co., newspaper publishing and printing	2
International Milk Co., Inc., dairy products	60
Ironbound Box & Lumber Co., wooden boxes	70
Jersey Abrasive Co., Inc., cutlery	
Jiffy Manufacturing Co., packing pads, furniture prepaks, bottle wrappers, insulating bags, etc.	65
Johnston Engineering Co., tools	
Miller Steel Co., Inc., steel bars	44
Mundet Cork Corporation, cork products	400
Neill & Spanjer, Inc., lumber, mahogany, hardwoods	33
Nelson Press, Inc., printing	6
Newark Engineering Co., special machinery	38
Overhead Door Co., Inc., the overhead door	53
Personal Granite Manufacturers, granite monuments	6
Reinhard-Mueller Co., printing	1
Reinke, Gus, Machinery & Tool Co., drill jigs	42
Rotary Metal Slitting Co., slitting of steel	9
Service Apron & Towel Supply	3
Stainless Engineering & Machine Co., machine work	50
Star Tool & Mfg. Co., radio chassis	31
Steinberg Roofing & Sheet Metal Works, built-up roofing	31
Stevens, E. M., sheet metal, tinning, roofing	1
Sunrise Dairies, processing of milk	30
Sun Tube Corp., collapsible metal tubes	380
Supreme Cleaners & Dyers, Inc., cleaning, dyeing	55
Town Talk Ice Cream Co., ice cream and sherbets	20
Triad Tool & Die Co., special machinery	35
Trio Aluminum Foundry Co., aluminum castings	6
Union Plastics Corp., molded plastics	63
Waine Wire Die Co., wire drawing dies	25
York Insulation Co., Inc., asbestos coverings	12

JOHNSON BRIDGE (in New Providence Boro.)

KENILWORTH (Boro). Inc May 13, 1907. Pop 2,451. Area 2.1 sq mi; 239 acres and 10,293 lots. Net valuation \$3,718,847. Tax rate \$4.94. Fire insurance rating E; protection 2 companies (50). In north central part of county, bounded north by Union, east by Roselle Park and Union, south by Cranford, west by Springfield. Railroad Rahway Valley R. R. Banking at Cranford and Elizabeth. Schools 2 public (465). Police 3. Industries plastics, resins, electrical parts and tools, industrial brushes, paper products, metal castings, patterns, wires. Includes Galloping Hill Park. Industries: Employees
American Laundry Machinery Co., The, rebuilding of laundry and dry cleaning machinery

85

UNION COUNTY (cont.)

KENILWORTH (cont.)

Carpenter Steel Co., The, welded alloy tube division, etc.	82
France, Campbell & Darling, Inc., synthetic resins	29
Gering Products, Inc., plastic materials	
Heyman Manufacturing Company, metal stampings	33
High Point Salvage Co., scrap metal	
Kenilworth Plastics Molding Co., molding buttons, electrical parts	130
Lock Joint Pipe Co., water, sewer, culvert and subaqueous reinforced concrete pipe	
National Tool & Manufacturing Co., plastic products	1000
Newark Brush Co., industrial brushes	
Papyrus Co., crepe papers, paper napkins	22
Protexal Corp., wood preservatives	15
Rohm, J., & Sons, Foundry Co., aluminum, brass	24
Schauer, A. V., pattern makers	
Volco Brass & Copper Co., copper, brass, bronze	346

LENOX (in Clark Twp.)

LINDEN (City). Inc as Boro Mar. 30, 1882, as City Apr. 3, 1924. Pop 24,115. Area 11.4 sq mi; 4,493 acres and 25,878 lots. Net valuation \$74,295,779. Tax rate \$3.42. Fire insurance rating C; protection paid department (150). In southeastern part of county, bounded north by Elizabeth and Roselle, east by Kill Van Kull, south by Middlesex County, and west by Rahway, Clark and Crawford. Railroads Baltimore & Ohio, Central R. R. of N. J., Penn. R. R. Bank Linden Trust Co. branch St. Georges & Charles St. Schools 10 public (4,524), 2 parochial. Police 70. Includes Bayway, Grasselli, Morris Mills, Tremley, Tremley Point, Warners, and Wheathead. Industries: Employees
Allen Industries, Inc., rug cushions, etc.
Allied Clothing Corp., men's clothing

Alloy Steel Products Co., stainless steel valves and pipe fittings

American Cyanamid Co., heavy fertilizers

Artistic Wire Products Co., fancy wire goods

Atlantic Romper Co., boys' wash suits

Baron, H., & Co., Inc., flavoring extracts

Ber-Wed Mfg. Co., Inc., men's shorts

Bopf-Whittam Corp. woolfat products, lanolin, etc.

Bush, W. J., & Co., essential oils and flavoring extracts

Cities Service Oil Co., asphalt, gasoline, fuel oil and related products

Cook's Adam, Sons, Inc., lubricating grease and compounders of lubricating oils

Cooperative Metal Co., scrap metal

Deluxe Record Co., Inc., phonograph records

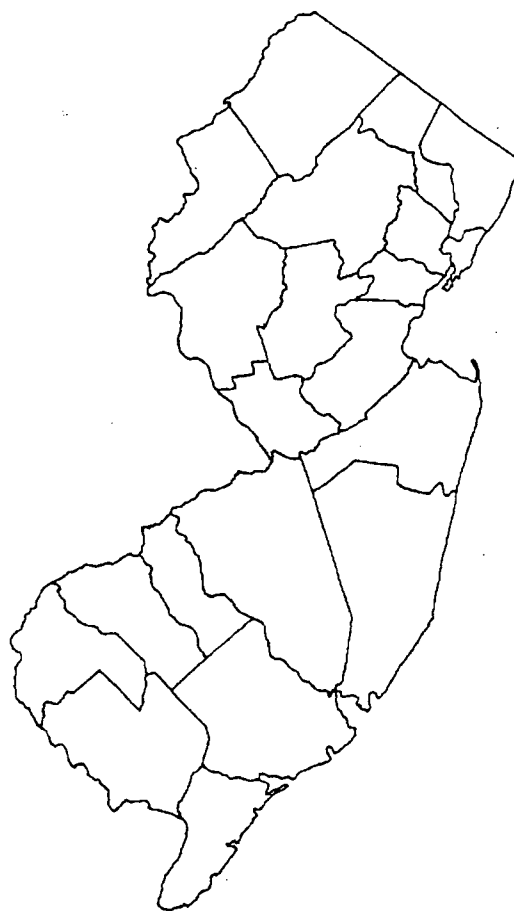
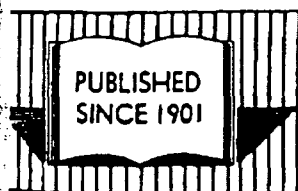
Derkiss Lead Burning Contractors, industrial lead equipment

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Emp: 35
 ◆ Synthetic Resins For Paints & Inks
 ★ SIC 2851, 2893
 Pr—F. Reese
 VP—R. Rynart
 S/L—F. Lawrence
 P/T—D. Fritz

T R A L G A R INDUSTRIES INC.

Colee Mat
 251 S 31st St.
 Kenilworth, NJ, 07033
 Phone: 201-241-8400
 Sales: Over \$10,000,000
 13,000 Sq. Ft. 7.5 Acres
 Emp: 341

▲ Colee Vending Machines
 SIC 3581
 Ch—Nelson Peltz
 Pr—Robert Freeman
 Exe/VP—Sidney Friedman
 VP—Barry Cohen
 VP—Philip Benvenuto/Jerry De Roma
 P/A—K. Cobeleich
 T/M—B. Blauvelt
 P/M—B. Cohen
 Ch/Eng—M. De Sai

TRIDENT METAL PRODUCTS, INC.

331 Monroe Ave.
 Kenilworth, NJ, 07033
 Phone: 201-276-1681
 30,000 Sq. Ft.
 Emp: 20
 Metal Stamping
 SIC 3469
 Pr—R. Ostermeller
 VP—D. Eckloff

ULLRICH COPPER, INC.

Sub. Of: Foster Wheeler Livingston
 1-2 Mark Rd.
 Kenilworth, NJ, 07033
 Phone: 201-688-9260
 40,000 Sq. Ft.
 Emp: 150
 Office: M 13, F 8
 Plant: M 87, F 0
 Copper Bus Bars, Electrical Copper
 Products
 SIC 3643
 Ch—Martin Warshaw
 VP—James Early
 VP—Gordon J. Michaels
 Sec—J. Deonis
 Tr—John Stamm
 Comp—John V. Burguillos
 T/M—J. E. Pate
 P/F—Anthony Pecelli & Joseph
 Pugliese
 M/M—Joseph Infante

UNITED SCREW & BOLT CORP.

844 Fairfield Ave.
 Kenilworth, NJ, 07033
 Phone: 201-241-8000
 Sales: \$1,000,000 To \$5,000,000
 5,000 Sq. Ft.
 Emp: 15
 Screws, Bolts, Nuts, Washers &
 Stampings
 SIC 3452
 VP—J. R. Teltson
 Branch Plants:
 Cleveland, Ohio

VOLCO BRASS & COPPER CO.

801 Boulevard
 Kenilworth, NJ, 07033
 Phone: 201-245-7200
 Sales: Over \$10,000,000
 200,000 Sq. Ft. 14 Acres
 Emp: 239
 Office: M 14, F 14
 Plant: M 211, F 0

◆ Brass, Copper Mill Prod. Strip Sheet,
 Flat/Round Wire, Brass/Copper Wire
 SIC 3351
 Ch/B—P. Coates
 Pr—R. Coates
 VP—M. Kraemer
 VP—D. Verlen
 VP—E. Szymczak
 VP—D. Wecht
 O/M—D. Marucci
 P/M—G. Harms
 P/Eng—A. Izzo

WAAGE ELECTRIC INC.

820 Colfax Avenue
 Kenilworth, NJ, 07033
 Phone: 201-245-9363
 Sales: \$1,000,000 To \$5,000,000
 20,000 Sq. Ft.
 Emp: 20
 Electrical Heating Equipment, Melting
 Pots
 SIC 3699, 3443
 Pr—Thomas C. Waage

WESTFIELD SHEET METAL WORKS INC.

P.O. Box 128, Monroe Ave. & Eighth
 St.
 Kenilworth, NJ, 07033
 Phone: 201-276-5500
 Sales: \$5,000,000 To \$10,000,000
 50,000 Sq. Ft. 3 Acres
 Emp: 120
 Office: M 11, F 7
 Plant: M 102, F 0

◆ Sheet Metal, Paint Spray, Steel
 Fabrication, Pollution Control
 Fabrication
 SIC 3444
 Pr—G. S. Christoff
 Exec/VP—C. Johnstone
 VP—C. Johnstone
 Sec—B. T. Christoff
 Tr—S. Scurek
 Comp—E. Penl
 S/M—E. G. Lincoln
 P/A—S. Guididas
 T/M—G. N. Christoll
 P/M—L. Gonzalez
 P/F—J. Dacosta
 S/D—T. Humphreys
 Ch/Eng—H. Gieser
 P/Eng—B. Nicholson

WHEATON, R. W. CO., INC.

P.O. Box 227
 Kenilworth, NJ, 07033
 Phone: 201-241-4955
 Iron Casting
 SIC 3369
 Pr—R. W. Wheaton, Jr.
 Sec—R. H. Wheaton

WHITE MACHINE CO.

50 Bortright Ave.
 Kenilworth, NJ, 07033
 Phone: 201-272-6700
 Sales: \$5,000,000 To \$10,000,000
 80,000 Sq. Ft. 3.3 Acres
 Emp: 95
 Office: M 15, F 5
 Plant: M 70, F 5
 ▲ Conveyor Systems
 SIC 3535
 Pr—D. J. Weiss
 Ch/Ex/Off—Donald Weiss
 VP—L. Weiss
 Sec—M. A. Weiss
 P/A—H. Eichenlaub

WILD & SCHULZE, INC.

835 Fairfield Ave.
 Kenilworth, NJ, 07033
 Phone: 201-245-1556
 Emp: 14
 Office: M 2, F 1
 Plant: M 11, F 0

▲ Package Handling Systems—Case
 Packers, Case Unloaders & Case
 Washers
 SIC 3551, 3569
 Pr—A. J. Wild
 VP—W. K. Wild
 Tr—Ruth S. Wild
 P/F—Chester Rawa

LINDEN

Telephone Area Code-201
 Inc.: Apr. 3, 1924
 Pop. 1976: 39,803
 Elev. (Ft.): 0-81
 Area (Sq. Mi.): 11.26
 Net Val. (1977): \$1,185,461,854
 Tax Rate Per \$100 (1977): \$1.82

AARVING DISPLAYS INC.

1227 W St. George Ave.
 Linden, NJ, 07036
 Phone: 201-925-8750
 Sales: \$5,000,000 To \$10,000,000

50,000 Sq. Ft.
 Emp: 85
 Mfg. Store Displays, Garment Racks &
 Window Stands
 SIC 3993, 2542, 2541
 Pr—A. W. Berman
 Exec/VP—E. Berman

ADVANCE MACHINE INC.

531 Pennsylvania Ave.
 Linden, NJ, 07036
 Phone: 201-486-7244
 Sales: Up To \$1,000,000
 Emp: 10
 Office: M 1, F 1
 Plant: M 8, F 0
 Machine Shop
 SIC 3599
 Pr—R. Walano
 O/M—Helen Gitter

ALUMINUM PRODUCTS DISTRIBUTORS, INC.

801-815 Stiles St.
 Linden, NJ, 07036
 Phone: 201-925-8444
 Sales: \$1,000,000 To \$5,000,000
 Est. 1946

Emp: 60
 Office: M 3, F 5
 Plant: M 35, F 17
 Storm Windows And Doors,
 Replacement Windows
 SIC 3442
 Owner—S. Holub
 Pr—S. Holub
 O/M—E. Williams
 P/M—D. Georgio
 P/F—E. Morgado

Bank:
 United Jersey Bank
 Orange, NJ
 Commercial Trust Co. Of NJ
 Linden, NJ

AMERICAN CYANAMID CO.

Sub. Of: Industrial Chemicals Div.
 P.O. Box 31, Trenley Pl. Rd.
 Linden, NJ, 07036
 Phone: 201-862-6000
 Sales: Over \$10,000,000
 2,700,000 Sq. Ft. 6 Acres
 Emp: 822

◆ Industrial Chemicals, Agricultural
 Pesticides

★ SIC 2899, 2879
 P/A—D. E. Zimmerman
 T/M—C.A. Mohn
 Pers/M—E. J. Yacker
 R/D—R. L. Hillard
 P/M—J. B. Reid
 S/D—D. B. Pearce
 Ch/Eng—K. W. Wuensch
 P/Eng—J. A. Miller
 M/M—T. E. Wilkinson
 Main Office
 Wayne, Passaic

AMERICAN FLANGE & MFG. CO., INC.

1100 Blanche St.
 Linden, NJ, 07036
 Phone: 201-862-5000
 Sales: Over \$10,000,000
 Emp: 400

▲ Closures For Steel Drums, Pails, Bottles
 & Cans

★ SIC 3079
 Pr—R. L. Parish, Jr.
 Exec/VP—H. F. Wheaton
 VP—John W. Larocque
 VP—C. L. Jones
 Mkt/Dir—C. L. Jones
 P/A—W. Stryker
 Pers/M—A. E. Resnik
 P/M—B. Harkins
 Main Office

AMERICAN MOLD AND TOOL

8 Roselle St.
 Linden, NJ, 07036
 Phone: 201-925-4336
 N
 Mold & Tool
 SIC 3544

APACHE FOAM PRODUCTS, CO.

Sub. Of: Kewanee Industries
 2025 E. Linden Ave.
 Linden, NJ, 07036
 Phone: 201-486-6723
 Sales: \$10,000,000 And Over Est.
 1967
 100,000 Sq. Ft. 3.5 Acres
 Emp: 125

▲ Urethane Foam Insulation

★ SIC 2822
 Pr—Fred Coglianese
 Sec—Sandra Kochan
 Comp—Vincent Flynn
 O/M—J. Secula
 S/M—Jerry Schubert
 P/A—J. Hines
 T/M—Ed Rodriguez
 Pers/M—Margaret Felver
 P/M—J. Timpano
 Branch Plants:
 Belvidere, Ill.
 North Salt Lake, Utah
 Jackson, Mississippi
 Bank
 Bankers Trust

APEX PLATING & POLISHING CO., INC.

114 E Prince St. P.O. Box 525
 Linden, NJ, 07036
 Phone: 201-925-3223
 Sales: \$1,000,000 To \$5,000,000
 9,300 Sq. Ft.
 Emp: 28
 Electroplating, Anodizing; Polishing
 SIC 3471
 Pr—W. Gary Bruhns
 Exec/VP—Robert H. Moore
 Sec—Delores Moore

ARTHUR DRESS COMPANY

842 E. St. George Ave.
 Linden, NJ, 07036
 Phone: 201-486-4561
 Emp: 40
 Women's And Misses Dresses
 SIC 2335
 Pr—Frank Saladino
 VP—Arthur Saladino
 Sec—Vera Saladino

ARTISTIC CREATIONS, INC.

P.O. Box 541, U.S. Hwy. 1 & Park
 Ave.
 Linden, NJ, 07036
 Phone: 201-486-0444
 48,000 Sq. Ft.
 Emp: 60
 Office: M 1, F 3
 Plant: M 32, F 56
 Decorative Christmas Displays
 SIC 3999
 Pr—Walter Averick
 O/M—Judith Struckko
 P/M—Jack Gibbs

ASTROLAB INC.

Astrolab International Inc.
 345 Dalziel Rd.
 Linden, NJ, 07036
 Phone: 201-862-0022
 Sales: \$1,000,000 To \$5,000,000
 20,000 Sq. Ft.
 Emp: 30

◆ R F Cable Assembly, Coaxial Cable, R F
 Connectors

★ SIC 3496, 3643
 Pr—J. Toma
 Sec—H. M. Toma
 S/M—L. Mc Cormack

B & B ELECTROPLATING CO., INC.

559 Pennsylvania Ave.
 Linden, NJ, 07036
 Phone: 201-925-5044
 Sales: \$1,000,000 To \$5,000,000
 10,000 Sq. Ft.
 Emp: 16
 Office: M 0, F 1
 Plant: M 15, F 0
 Metal Finishing & Aluminum Sales
 SIC 3471
 Pr—E. N. Brown

B. & B. ELECTROPLATING CO., INC.
 559 Pennsylvania Avenue
 Linden, NJ, 07036
 Phone: 201-925-5044

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* Directors

Bank: National Community Bank, Lodi, NJ
Accts: Michael Massoud, Jr. Montville, NJ
Law Firm: Samuel Bornstein, Montclair, NJ

UNGERER & COMPANY

4 Bridgewater Lane Lincoln Park, NJ 07035
 Phone: 201-628-0600
Products: Essential Oils, Aromatic Chemicals, Perfume and Flavor Bases

SIC: 2844 2869 2899 **Estab:** 1893
Emp: 125
Acres: 4

* Pr-Kenneth Voorhees, Jr.
 VP-David DeMott
 VP-Laura Belovs
 VP-Sis-John Olsen
 VP-Mkt-Francis Tangel
 * Tr-A. Winhal
 * Sec-J. McColgan

* Directors, also:
 George V. Branigan

Accts: Ernst & Young, New York City

LINCROFT

BIHLER STAINED GLASS STUDIO

6508 Newman Springs Road Lincroft, NJ 07738
 Phone: 201-747-7427

Products: Products From Purchased Glass

SIC: 3231
Sales: \$500M-1MM **Emp:** 10

LINDEN

A B REGISTRATION CORP

12 Sherman Street Linden, NJ 07036
 Phone: 201-486-3311
Products: Packaging Machinery Controls

SIC: 3525
Emp: 6

Pr-A. Marchev

A G P GENTECH INC

(Div Tape Enterprises, Linden)

531 North Stiles Street Linden, NJ 07036
 Phone: 201-925-0900
Products: Gummed, Coated Paper, Tapes, Reinforced and Pressure Sensitive Tapes

SIC: 2671 2672 **Estab:** 1930
Sales: \$35MM **Emp:** 250
Sq.Ft: 190000 **Acres:** 7

* ChBd-David Permuter
 CEO/Pr-Carl K. Glickman
 VP-Fin-Fredrick Frank
 VP-Oper-Tomas Weiss
 PA-Bertram Goldberg
 ChEng-Benny Pastro

* Directors, also:

Jack Goldstein

Bank: Citytrust, Bridgeport, CT

Accts: Touche Ross & Company, New York City

ADVANCE MACHINE, INC

531 Pennsylvania Avenue Linden, NJ 07036
 Phone: 201-486-7244

Products: Machine Shop

SIC: 3599 **Estab:** 1971
Sales: Under \$500M **Emp:** 10

Pr-R. Walano
 GM-Helen Gitter

ALUMINUM PRODUCTS DISTRIBUTORS

INC
 801 North Stiles Street Linden, NJ 07036
 Phone: 201-925-8444

Products: Aluminum and Vinyl Windows and Doors

SIC: 3442 **Estab:** 1946
Sales: \$2-5MM **Emp:** 50

Pr-S. Holub
 PltMgr-David Giorgio

Bank: United Jersey Bank, Orange, NJ
Accts: Besser, Colner, Herbst & Lusibader, West Orange, NJ
Law Firm: Kaplowitz & Wise, Linden

AMERI FAST

355 Dalziel Road Linden, NJ 07036
 Phone: 201-862-4815

Products: Steel and Brass Cold Headed Nuts

SIC: 3452 **Estab:** 1956
Sales: \$2-5MM **Emp:** 15
Sq.Ft: 13,400

* Pr-James L. Peichtel
 SisMgr-Alex Lebowitz
 * Directors

Bank: Midlantic National Bank, Newark
Accts: Morrison, Strydesky & Company, Linden

AMERICAN CYANAMID/CHEMICAL

PRODUCTS DIV
 (Div American Cyanamid Company, Wayne, NJ)

Tremley Point Road Linden, NJ 07036
 Phone: 201-862-6000
Products: Industrial Chemicals, Agricultural Pesticides

SIC: 2819 2879 2869 **Estab:** 1917
Sales: \$20-50MM **Emp:** 220
Sq.Ft: 2Mil **Acres:** 31

Pr-E. C. Bosacki
 PersMgr-R. B. Johnson
 PA-J. Spencer
 ChEng-E. Wuensch
 PltMgr-R. B. Tabakin

AMERICAN FLANGE & MANUFACTURING CO., INC

1100 West Blanche Street Linden, NJ 07036
 Phone: 201-862-5000

Products: Metal and Plastic Nozzles, Spouts, Container and Drum Closures, Caps

SIC: 3466 3432 3089 **Estab:** 1922
Sales: \$50MM **Emp:** 1,000
Sq.Ft: 500,000 **Acres:** 14

* Pr-Tr-Richard L. Parish, Jr.
 VP-David L. McKissock
 VP-Fin-Edward C. Yen
 * Sec-J. A. Drabek
 * ProdMgr-R. L. Parish III

* Directors, also:

J. W. La Rocque Phillip L. Bondy

A. M. Parker

Bank: Chase Manhattan Bank, New York City

Accts: Peat, Marwick, Main & Company, Newark

Law Firm: Cahill, Gordon & Reindel, New York City

AMPRO-DIACLEAR COMPANY

(Div Hayward Industries, Inc., Elizabeth)

1320 West Blanche Street Linden, NJ 07036
 Phone: 201-862-3000

Products: Swimming Pool Filtration Systems

SIC: 3589 **Estab:** 1955
Sales: \$2-5MM **Emp:** 50

Pr-Oscar Davis
 GM-Larry Savage
 SisMgr-Mark Chunka

ANDERSON TOOL & PLASTICS

1430 West Blanche Street Linden, NJ 07036
 Phone: 201-862-5550

Products: Special Dies and Tools, Die Sets, Jigs and Fixtures, Plastic Products

SIC: 3544 3089 **Estab:** 23
Sales: \$2MM **Emp:** 23

Pr-Andy Anderson
 Sec-Dolores Anderson

ANKO TOOL CO., INC

1006 East Elizabeth Avenue Linden, NJ 07036
 Phone: 201-925-6358

Products: Screw Machine Products

SIC: 3451 **Estab:** 1972
Sales: Under \$500M **Emp:** 5

Sq.Ft: 5,000
 Pr-Andrew J. Krivenko

APACHE BUILDING PRODUCTS COM.

PANY
 (Sub Walter Industries Inc, Tampa)

2025 East Linden Avenue Linden, NJ 07036
 Phone: 201-486-6723

Products: Polyurethane and Polyisocyanurate Insulation

SIC: 3086 3069 **Estab:** 1967
Sales: \$10-20MM **Emp:** 80
Sq.Ft: 100,000 **Acres:** 3

GM/DirMgr-Fred A. Coglianese
 Comp-Arthur Weprinsky
 PA/PersMgr-Helen Stefanik
 PltMgr-Douglas Riley

APEX PLATING & POLISHING CO., INC

725 Commerce Road Linden, NJ 07036
 Phone: 201-862-3223

Products: Electroplating, Anodizing, Polishing

SIC: 3471 **Estab:** 1950
Sales: \$1-2MM **Emp:** 32
Sq.Ft: 16,000

* Pr-W. Gary Bruhns
 * ExVP-Robert M. Moore
 * Sec-Dolores J. Moore
 * Directors

ARMOLOY INTERNATIONAL, INC

(Div LLL Enterprises, Inc, Linden)

932 East Elizabeth Avenue Linden, NJ 07036
 Phone: 201-925-7090

Products: Precision Hard Chrome Plating

SIC: 3471 **Estab:** 1968
Sales: Under \$500M **Emp:** 6

Sq.Ft: 3,000
 Pr-Leo Lee

ATLAS VALVE COMPANY

800 East Elizabeth Avenue Linden, NJ 07036
 Phone: 201-925-4600

Products: Temperature and Pressure Control Valves

SIC: 3492 **Estab:** 15
Sales: \$500M-1MM **Emp:** 15

Sq.Ft: 12,000
 Pr-G. H. Blanchard

VP/SisMgr-R. Blanchard
 Sec/PersMgr-A. Kierych

Bank: Summit Trust Company, Elizabeth

B & B ELECTROPLATING COMPANY

559 Pennsylvania Avenue Linden, NJ 07036
 Phone: 201-925-5044

Products: Metal Finishing

SIC: 3471 **Estab:** 13
Sales: \$1-2MM **Emp:** 13

Sq.Ft: 10,000 **Acres:** 1/3
 Pr-E. W. Brown

BARRE CO., INC., THE

201 Park Avenue South Linden, NJ 07036
 Phone: 201-925-7800

Products: Chassis, Panels, Stampings

SIC: 3444 3443 3469 **Estab:** 1951
Sales: \$6MM **Emp:** 90

Sq.Ft: 30,000 **Acres:** 2
 * CEO/Pr-Fred D. Barre

* DirMgr-Kenneth Murray
 * SisMgr-Joseph Cole

* Directors, also:

Donald Goodliffe Peter Sanoriello

Bank: Summit Trust Company, Summit, NJ

Accts: Weiner & Company, Morristown, NJ

Law Firm: Kasen, Kraemer, Burns & Lovell, Newark

BAUMAN METAL PRODUCTS, INC

1628 East Elizabeth Avenue Linden, NJ 07036
 Phone: 201-925-2681

Products: Sheet Metal, Bending, Punching and Welding of Metal

SIC: 3443 3444 **Estab:** 1956
Sales: \$500M-1MM **Emp:** 25

Sq.Ft: 10,000
 Pr-John Bauman

VP-Mlg-Eugene J. Bauman

BEINSTEIN VILLAGE BAKERY COM.

PANY
 1742 Saint George Avenue Linden, NJ 07036
 Phone: 201-486-9600

Products: Bakery Products

SIC: 2051 **Estab:** 20
Emp: 20

Pr-N. Beinstein

BESELER, CHARLES, COMPANY

1600 Lower Road Linden, NJ 07036
 Phone: 201-862-7999

Products: Audiovisual and Photographic Equipment, Shrink Packaging Machinery

SIC: 3861 3565 **Estab:** 1869
Sales: \$20-50MM **Emp:** 535

Sq.Ft: 188,000

* CEO/ChBd-Ian Brightman

* CFO-Hank Gasikowski

VP-Eng-George Howitt

VP-Mkt-Shelly Gordon

DirMkt-Tom Shamas

OperMgr-Leon Borowski

* Directors

Bank: Midlantic National Bank, Morristown, NJ

Accts: Ferro & Berdon, New York City

BREM METAL FABRICATORS, INC

(Branch Garwood Metal, Garwood, NJ)

608 East Elizabeth Avenue Linden, NJ 07036
 Phone: 201-925-4554

Products: Sheet Metal

SIC: 3444 **Estab:** 1957
Sales: \$1-2MM **Emp:** 33

Sq.Ft: 12,000

* Pr-D. Kalis
 VP-C. Kalis
 * Directors

Bank: United Counties Trust Company, Linden

BRODIE SYSTEMS, INC

(Affil Crowell Manufacturing Corp, Linden)

1539 West Elizabeth Avenue Linden, NJ 07036
 Phone: 201-862-8620

Products: Machine Shop

SIC: 3599 **Estab:** 1959
Emp: 10

Pr-Edgar W. Nielsen

CADILLAC PLASTIC & CHEMICAL COM.

PANY
 (Div M. A. Hanna Company, Cleveland)

1801 West Edgar Road Linden, NJ 07036
 Phone: 201-862-8900

Products: Plastic Sheets, Tubes, Film, Safety Products, Graphic Arts Supplies

SIC: 3081 3082 3089 3952 **Estab:** 38
Emp: 38

Sq.Ft: 35,000
 GM-A. Schein

PA-M. Estok

CARNIVAL-SURPRISE

1050 Edward Street Linden, NJ 07036
 Phone: 201-862-8400

Products: Bras, Girdles, Lingerie

SIC: 2342 2341 **Estab:** 250
Emp: 250

Sq.Ft: 100,000

Pr-Frank Klein

Comp-Saul Bostwick

SisMgr-Martin Finkelstein

PA-F. Sollelio

PltMgr-Lou Kraus

CENTRAL MACHINE SHOP, INC

11 McKinley Street Linden, NJ 07036
 Phone: 201-925-1176

Products: Machine Shop

SIC: 3599 **Estab:** 9
Sales: \$500M-1MM **Emp:** 10

Pr-G. Grillo
 VP-B. E. Osicroba

Sec-M. Osicroba

CLARKE VALVE GRINDING

909 East Elizabeth Avenue Linden, NJ 07036
 Phone: 201-925-6777

Products: Machining

SIC: 3599 **Estab:** 1964
Sales: \$500M-1MM **Emp:** 40

Sq.Ft: 28,000

Pr-William J. Frenchu

VP-Jose Garcia

Sec-Dolores Souza

SisMgr-Anton Kogut

PA-Phillip Kasper

PltMgr-Phillip Zambri

Bank: National State Bank, Elizabeth

Accts: Mortenson, Fleming, Grizzetti & Boiko, West Orange, NJ

Law Firm: Carpenter, Bonnett & Morrissey, Newark

COMSIP, INC/CUSTOMLINE DIVISION

(Sub CGEE Aisthom, Paris)

1418 East Linden Avenue Linden, NJ 07036
 Phone: 201-486-1272

Products: Control Panels

SIC: 3613 **Estab:** 1954
Sales: \$10-20MM **Emp:** 75

Sq.Ft: 24,000

* ChBd/Pr-Joseph Chriqui

* VP-Richard Sylvester

* VP-Mkt-Alain Berger

Cont-Bernard Baron

* Directors, also:

M. Gerard P. Henry

L. Rouillet

Bank: United Jersey Bank, Jersey City

Accts: Coopers & Lybrand, Newark

CONDENSER SPECIALTIES & REPAIRS, INC

(Div Consolidated Products, Hoboken, NJ)

11 Roselle Street Linden, NJ 07036
 Phone: 201-925-9780

NEW JERSEY DIRECTORY OF MANUFACTURERS®

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NEW JERSEY GEOGRAPHICAL SECTION

(Lincoln Park - Linden)

SIC: 3625 3613 Etab: 1967
Sales: \$5-10MM Emp: 28
Sq.Ft: 14,600
OperMgr - Rolf Geissler
SlsMgr - John F. Doda

LOWE ENGINEERING COMPANY
2 Station Road Lincoln Park, NJ 07035
Phone: 201-696-1300
FAX: 201-696-1301
Products: Oil Retrieval and Grease Recovery Units

SIC: 3569 Etab: 1940
Sales: Under \$500M Emp: 6
Sq.Ft: 9,500 Acres: 3.4
Pr: John G. Lowe
VP: L. M. Macher

Bank: Citizens First National Bank, Lincoln Park
Accts: William L. Stenger, Jr. Little Falls, NJ
Law Firm: Marshall Massa, Pequannock, NJ

NASA MACHINE TOOLS, INC
One B Frassetto Way Lincoln Park, NJ 07035
Phone: 201-633-5200
FAX: 201-633-5272
Products: Industrial Machinery and Equipment, CNC Machine Tools

SIC: 3569 3559 3599 Etab: 1981
Sales: \$2-5MM Emp: 25
Sq.Ft: 12,000
Pr: Robert DeGeorge
Tr Sec: Barbara DeGeorge
DirMkt: Robert DeGeorge, Jr
Directors

TECH TOOL & MACHINE CO., INC
62 Bog and Vly Lane Lincoln Park, NJ 07035
Phone: 201-694-1237
FAX: 201-694-2704
Products: Machine Shop

SIC: 3599 Etab: 1954
Sales: \$1-2MM Emp: 30
Sq.Ft: 12,000 Acres: 5
Pr: Edward J. Nowak, Jr
Tr Sec: Linda Finnigan

Bank: Citizens First National Bank, Lincoln Park
Accts: C. Aarons, West Nyack, NY
Law Firm: Lawrence Casha, Towaco, NJ

TEKNICS INDUSTRIES, INC
170 Beaver Brook Road Lincoln Park, NJ 07035
Phone: 201-633-7575
Products: CNC Machine Tools

SIC: 3541 3542 Etab: 1978
Sales: \$2-5MM Emp: 14
Sq.Ft: 30,000 Acres: 9
CEO Pr: Bruce Robertson
ExVP: Robert Fazekas
VP Sec: David Robertson
SlsMgr: Anthony J. Chiarello
Directors

Bank: Bank of New York, Ltd., NJ
Accts: Michael Massood, Jr. Totowa, NJ
Law Firm: Samuel Bornstein, Paramus, NJ

UNGERER & COMPANY
4 Bridgewater Lane Lincoln Park, NJ 07035
Phone: 201-628-0600
Products: Essential Oils, Aroma Chemicals, Perfumes and Flavors

SIC: 2844 2869 2899 Etab: 1893
Sales: \$500M-1MM Emp: 15
Sq.Ft: 12,000
Pr: G. H. Blanchard
VP-Sls: R. Blanchard
Sec/PersMgr: A. Kiernych

Bank: Summit Bank, Elizabeth

SIC: 3599 Etab: 1971
Sales: Under \$500M Emp: 9
Pr: R. Walano
Bank: United Jersey Bank, Linden

ANDERSON TOOL & DIE CORP
1430 West Blancke Street Linden, NJ 07036
Phone: 908-862-5550
Products: Pharmaceutical Brushes

SIC: 3841 3842 3991 Etab: 1971
Sales: \$1-2MM Emp: 23
Sec: Dolores Anderson

ANKO TOOL CO., INC
1006 East Elizabeth Avenue Linden, NJ 07036
Phone: 908-925-6358
FAX: 908-925-1203
Products: Screw Machine Products

SIC: 3451 Etab: 1972
Sales: Under \$500M Emp: 5
Sq.Ft: 5,000
Pr: Andrew J. Krivenko

APACHE BUILDING PRODUCTS COMPANY
(Sub Walter Industries Inc. Tampa, FL)
2025 East Linden Avenue Linden, NJ 07036
Phone: 908-486-6723
Products: Polyurethane and Polyisocyanurate Insulation

SIC: 3086 Etab: 1967
Sales: \$10-20MM Emp: 80
Sq.Ft: 100,000 Acres: 3
GM/DirMgt: F. A. Coglianese
Comp: Arthur Weprinsky
PA/PersMgr: Helen Stefanik
PltMgr: Douglas Riley

APEX PLATING & POLISHING CO., INC
725 Commerce Road Linden, NJ 07036
Phone: 908-862-3223
FAX: 908-862-0842
Products: Electroplating, Anodizing and Polishing of Metals

SIC: 3471 Etab: 1950
Sales: \$1-2MM Emp: 32
Sq.Ft: 16,000
Pr: W. Gary Bruhns
ExVP: Robert M. Moore
Sec: Dolores J. Moore
Directors

ARMOLLOY INTERNATIONAL, INC
(Div LLL Enterprises, Inc. Linden)
932 East Elizabeth Avenue Linden, NJ 07036
Phone: 908-925-7090
Products: Precision Hard Chrome Plating

SIC: 3471 Etab: 1968
Sales: Under \$500M Emp: 6
Sq.Ft: 3,000
Pr: Leo Lee

ATLAS VALVE COMPANY
800 East Elizabeth Avenue Linden, NJ 07036
Phone: 908-925-4600
FAX: 908-925-9363
Products: Temperature and Pressure Control Valves

SIC: 3492 Etab: 1907
Sales: \$500M-1MM Emp: 15
Sq.Ft: 12,000
Pr: G. H. Blanchard
VP-Sls: R. Blanchard
Sec/PersMgr: A. Kiernych

Bank: Summit Bank, Elizabeth

B & B ELECTROPLATING COMPANY
559 Pennsylvania Avenue Linden, NJ 07036
Phone: 908-925-5044
FAX: 908-925-1936
Products: Metal Finishing

SIC: 3471 Etab: 1972
Sales: \$1-2MM Emp: 13
Sq.Ft: 10,000 Acres: 1/3
Pr: E. W. Brown

BARRE CO., INC., THE
201 Park Avenue South Linden, NJ 07036
Phone: 908-925-7800
Products: Chassis, Panels, Stampings

SIC: 3444 3448 3469 Etab: 1951
Sales: \$5-10MM Emp: 60
Sq.Ft: 30,000 Acres: 2
CEO/Pr/SlsMgr: Fred D. Barre
PltMgr: Frank Tirtillo
Directors

Bank: Summit Bank, Summit, NJ

Accts: Ross, Anglim, Angelini, Valla & Krawitz, Watchung, NJ
Law Firm: Kraemer, Burns & Lovell, Springfield, NJ

BAUMAN METAL PRODUCTS, INC
1628 East Elizabeth Avenue Linden, NJ 07036
Phone: 908-925-2681
Products: Sheet Metal, Bending, Punching and Welding of Metal

SIC: 3443 3444 Etab: 1956
Sales: \$500M-1MM Emp: 9
Sq.Ft: 10,000
Pr: Eugene J. Bauman
VP-Mgt: Eugene J. Bauman, Jr
VP-Sls: Christopher Bauman

BAYWAY REFINING COMPANY
(Sub Tosco Corp. Stamford, CT)
Park Avenue and Brunswick St Linden, NJ 07036
Phone: 908-474-0100
Products: Petroleum Refining

SIC: 2911 Etab: 1956
Sales: Over \$200MM Emp: 1,000
OperMgr: Thomas Nimbley
PersMgr: Ron C. Kowalczyk

BEINSTEIN VILLAGE BAKERY COMPANY
1742 East Saint George Avenue Linden, NJ 07036
Phone: 908-486-9600
Products: Bakery Products

SIC: 2051 Etab: 1956
Sales: \$1-2MM Emp: 20
Pr: N. Beinstein

BESELER, CHARLES, COMPANY
1600 Lower Road Linden, NJ 07036
Phone: 908-862-7999
Products: Photographic Equipment, Shrink Packaging Machinery, Shelving

SIC: 3861 3565 2542 Etab: 1869
Sales: \$20-50MM Emp: 200
Sq.Ft: 188,000
ChBd/CEO: Ian Brightman
CFO/VP-Oper: Hank Gasikowski
VP-Eng: Joel Rudder
DirMgt: Charlie Simony
Directors

Bank: Midlantic National Bank, Morristown, NJ
Accts: Ferro & Berdon, New York City

BRODIE SYSTEMS, INC
1539 West Elizabeth Avenue Linden, NJ 07036
Phone: 908-862-8620
FAX: 908-862-8632
Products: Machine Shop and Printing Press Products

SIC: 3599 3555 Etab: 1956
Sales: \$1-2MM Emp: 15
Pr: Thomas Nielsen

CADILLAC PLASTIC & CHEMICAL COMPANY
(Div M. A. Hanna Company, Cleveland)
1801 West Edgar Road Linden, NJ 07036
Phone: 908-862-8900
FAX: 908-862-8783
Products: Plastic Sheets, Tubes, Film, Safety Products, Graphic Arts Supplies

SIC: 3081 3082 3089 3952 Etab: 1956
Sales: \$5-10MM Emp: 38
Sq.Ft: 35,000
GM: Mark McCord
PA: Michael Estok

CARNIVAL CREATIONS INC
1050 Edward Street Linden, NJ 07036
Phone: 908-862-8400
FAX: 908-862-3019
Products: Bras, Girdles and Lingerie

SIC: 2342 2341 Etab: 1956
Sales: \$1-2MM Emp: 250
Sq.Ft: 100,000
Pr: Frank Klein
Comp: Saul Bostwick
PA: F. Sollecito
PltMgr: Lou Kraus

CEGELEC AUTOMATION INC
(Sub Cegelec, Paris)
1418 East Linden Avenue Linden, NJ 07036
Phone: 908-486-1272
FAX: 908-486-9316
Products: Control Panels, Water Analysis and Emission Monitoring Systems

SIC: 3613 3823 3826 Etab: 1954
Sales: \$1-2MM Emp: 10
Sq.Ft: 10,000
Pr: J. W. Bossert
VP: Randall Bossert

Sales: \$10-20MM Emp: 75
Sq.Ft: 24,000
Pr: John Ladden
SrVP-Oper: Richard Sylvester
SrVP-Fin: Bernard Baron
OCMgr: Eric Morales
PltMgr: Peter Gady
Directors

Bank: United Jersey Bank, Jersey City
Accts: Grant Thornton

CENTRAL MACHINE SHOP, INC
1506 East Elizabeth Avenue Linden, NJ 07036
Phone: 908-925-1176
Products: Machine Shop

SIC: 3599 Etab: 1956
Sales: \$1-2MM Emp: 9
Pr: B. E. Osicroba
VP: M. Osicroba

CENTRAL PRODUCTS COMPANY
(Sub Alco Standard Corp. Wayne, PA)
531 North Stiles Street Linden, NJ 07036
Phone: 908-925-0900
FAX: 908-925-5109
Products: Gummed, Coated Paper, Tapes, Reinforced and Pressure Sensitive Tapes

SIC: 2671 2672 Etab: 1930
Sales: \$35MM Emp: 125
Sq.Ft: 190,000 Acres: 7
Pr: John Powers
PltMgr: Henry Malone

Bank: Chase Manhattan Bank, Bridgeport, CT
Accts: Ernst & Young

CHALLENGER ELECTRICAL EQUIPMENT CORP
(Div Challenger Electrical Corp. Malvern, PA)
1301 West Elizabeth Avenue Linden, NJ 07036
Phone: 908-862-4600
FAX: 908-862-4474
Products: Air Circuit Breakers

SIC: 3613 3672 Etab: 1956
Sales: \$1-2MM Emp: 7
Sq.Ft: 20,000
PltMgr: J. Citrodelia

CLARKE VALVE GRINDING
909 East Elizabeth Avenue Linden, NJ 07036
Phone: 908-925-6777
Products: Machining

SIC: 3599 Etab: 1956
Sales: \$500M-1MM Emp: 5
Owner: Pr: Donald Quinn

COLORCO, INC
1261 West Elizabeth Avenue Linden, NJ 07036
Phone: 908-862-3011
FAX: 908-862-7443
Products: Color Concentrates

SIC: 2865 Etab: 1964
Sales: \$5-10MM Emp: 33
Sq.Ft: 28,000
Pr: Jose Garcia
VP: Anton Kogut
Sec: Dolores Souza
PA: Phillip Kasper
PltMgr: Phillip Zambri

Bank: Constellation Bank, Elizabeth
Accts: Garruto, Carr & Company, Madison, NJ
Law Firm: Joel Seltzer, Roselle Park, NJ

COOKS INDUSTRIAL LUBRICANTS, INC
(Sub Eli Lubricants, Paris)
5 North Stiles Street Linden, NJ 07036
Phone: 908-862-2500
Products: Lubricating, Cutting, Drawing and Quench Oils

SIC: 2992 Etab: 1868
Sales: \$11MM Emp: 60
Sq.Ft: 50,000 Acres: 2
Pr: Anthony Soriano
SlsMgr: Richard J. Cariss
PA: R. Korbowski
PltMgr: Robert Kelly
Directors

COOLENHEAT, INC
1428 Blanke Street Linden, NJ 07036
Phone: 908-925-4473
Products: Heat Exchangers

SIC: 3443 Etab: 1951
Sales: \$2-5MM Emp: 40
Sq.Ft: 14,000
Pr: J. W. Bossert
VP: Randall Bossert

- * VP Tr - Jonathan Bossert
- * VP Sec - Jeffrey Bossert
- * Directors

CUSTOM FABRICATORS, INC
 400 Commerce Road Linden, NJ 07036
 Phone: 908-862-4244
 FAX: 908-862-4245
 Products: Sheet Metal Parts
 SIC: 3444 Etab: 1966
 Sales: Under \$500M Emp: 10
 Sq.Ft: 10,000
 Pr - Joseph Bonanno
 Bank: National Westminster Bank, Roselle, NJ

CYTEC INDUSTRIES INC PROCESS CHEMICALS
 Foot of Tremley Point Road Linden, NJ 07036
 Phone: 908-862-6000
 FAX: 908-862-9312
 Products: Industrial Chemicals
 SIC: 2819 2869 Etab: 1993
 Sales: \$2-5MM Emp: 75
 Acres: 31
 Pr - Darryl D. Fry
 PersMgr - J. D. Rath
 PA - J. K. Hill
 ChEng - A. Bocker
 PltMgr - Jeanne Burnell

D'ANGELO METAL PRODUCTS CO., INC
 360 Daiziel Road Linden, NJ 07036
 Phone: 908-862-8220
 Products: Plumbing Accessories
 SIC: 3432 Etab: 1948
 Sales: \$500M-1MM Emp: 11
 Sq.Ft: 14,000 Acres: 1.2
 Pr - John D'Angelo
 Tr - Anthony Scamardella
 PltMgr - W. Gajek
 Bank: Constellation Bank, Rahway, NJ

DAPRIE RAILINGS, INC
 720 East Elizabeth Avenue Linden, NJ 07036
 Phone: 908-486-4867
 Products: Architectural and Ornamental Metal Work
 SIC: 3446 Etab: 1932
 Sales: Under \$500M Emp: 7
 Sq.Ft: 6,000
 Pr - Frederick Daprie
 VP - Arleen Daprie
 Bank: United Jersey Bank, Linden
 Accts: Verbel Company, Metuchen, NJ
 Law Firm: Mella & Jacques, Short Hills, NJ

DOCK RESINS CORP
 1512 West Elizabeth Avenue Linden, NJ 07036
 Phone: 908-862-2351
 Products: Synthetic Resins, Custom Processing
 SIC: 2821 2869 3087 Etab: 1947
 Sales: \$5-10MM Emp: 45
 Sq.Ft: 25,000 Acres: 2
 * ChBd - A. Wayne Tamarelli
 * Pr - Philip J. Barbanel
 * Directors
 Bank: United Jersey Bank, Elizabeth
 Accts: Ernst & Young, Iselin, NJ

DRAPKIN PRINTING COMPANY
 108 South Wood Avenue Linden, NJ 07036
 Phone: 908-862-2978
 FAX: 908-862-6462
 Products: Commercial Printing
 SIC: 2759 2752 Etab: 1934
 Sales: Under \$500M Emp: 6
 Sq.Ft: 2,400
 * ChBd - Owen Drapkin
 * VP - Samuel Drapkin
 * Directors, also:
 Harriet Drapkin
 Bank: United Jersey Bank, Linden
 Accts: Friedman, Fischbein & Company, Union, NJ
 Law Firm: Posznick & Zitomer, Linden

EVERGARD STEEL CORP
 1825 Pennsylvania Avenue Linden, NJ 07036
 Phone: 908-925-6800
 FAX: 908-925-6802
 Products: Wire Spooling, Straightening and Cutting, Wire Forms, Coil Stock
 SIC: 3496 3315 Etab: 1961
 Sales: Under \$500M Emp: 10
 Sq.Ft: 15,000
 Pr - Eugene Besanceney
 Tr/Sec - Jack Ryan
 PltMgr - Connie F. Macellara
 Bank: United Counties Trust Company, Linden
 Accts: Ostroff & Shapiro, Union, NJ

F H M CLOTHING MANUFACTURING CO., INC
 729 East Elizabeth Avenue Linden, NJ 07036
 Phone: 908-925-5788
 FAX: 908-925-0858
 Products: Men's Trousers and Sports Coats
 SIC: 2337 Etab: 1986
 Sales: \$2-5MM Emp: 90
 Sq.Ft: 15,000
 Pr - John Hilton
 Tr/Sec - D. Pietrapertosa
 Bank: Constellation Bank, Elizabeth
 Accts: Krim, Hilker & Associates, Eatontown, NJ
 Law Firm: Wilentz, Goldman & Spitzer, Woodbridge, NJ

FABCO METAL PRODUCTS
 827 Linden Avenue East Linden, NJ 07036
 Phone: 908-862-8500
 Products: Metal Products
 SIC: 3499 Etab: 1948
 Emp: 6
 Sq.Ft: 9,500
 Pr - E. L. Gasorek
 Tr - Kathryn E. Gasorek

FLEXICO PRODUCTS COMPANY
 637 East Elizabeth Avenue Linden, NJ 07036
 Phone: 908-486-3330
 Products: Interlocking Metal Hose
 SIC: 3598 Etab: 1948
 Sales: \$2-5MM Emp: 20
 Sq.Ft: 14,000
 * Pr - Jeff Scheininger
 * Directors

FLEXLINE HOSE COMPANY
 (Div US Brass & Copper, Linden)
 641 Elizabeth Avenue Linden, NJ 07036
 Phone: 908-486-6633
 FAX: 908-486-3352
 Products: Flexible Metallic Hoses
 SIC: 3599 Etab: 1950
 Emp: 30
 ProdMgr - Michael Psekerin

FLICKER VACUUM MANUFACTURING INC
 500 Commerce Road Linden, NJ 07036
 Phone: 908-862-1000
 FAX: 908-862-4418
 Products: Industrial Vacuums and Accessories
 SIC: 3589 Etab: 1950
 Sales: \$1-2MM Emp: 12
 Sq.Ft: 26,000
 Pr - William Schwartz
 VP/PA - Arthur Schwartz
 VP/Sls - Alan Schwartz
 ProdMgr - Stan Tobiaz
 Bank: Summit Bank, Elizabeth
 Accts: Quilko, Block & Coopersmith, New York City
 Law Firm: Nathan B. Sloan, New York City

FORM MANUFACTURING COMPANY
 11 Carnegie Street Linden, NJ 07036
 Phone: 908-925-1050
 FAX: 908-925-5460
 Products: Molds for the Plastic Industry, Die Castings
 SIC: 3544 Etab: 1952
 Sales: Under \$500M Emp: 6
 Sq.Ft: 4,000
 Pr - Michael J. Sabasko
 Tr - C. Nauzer
 Sec - Walter H. Groiss
 Bank: United Counties Trust Company, Linden
 Accts: Lewis & Sternbach, Maplewood, NJ

FUTURE PHOTO SCREENS COMPANY
 7 Garfield Street Linden, NJ 07036
 Phone: 908-486-0200
 Products: Photo Screens for Silk-screen Printing

SIC: 3861 Etab: 1960
 Sales: Under \$500M Emp: 5
 Sq.Ft: 4,200
 Partner - Julius Andrus
 Partner - Stanley Zaneski

GENERAL MAGNAPLATE CORP
 1331 Route 1 Linden, NJ 07036
 Phone: 908-862-6200
 FAX: 908-862-6110
 Products: Engineered Metal Coatings, Electroplating and Finishing of Metals
 SIC: 2851 3471 Etab: 1952
 Sales: \$5-10MM Emp: 130
 Sq.Ft: 90,000 Acres: 4
 * ChBd/CEO - Chas. P. Covino
 * Pr/VP-Mkt - C. Aversenti
 VP/GM - Edmund Aversenti
 VP/SlsMgr/PA - Walter P. Alina
 * Sec - Harold F. Levin
 PltMgr - M. Youssef
 * Directors, also:
 S. Thomas Aitken Edward Partenope
 Bank: Constellation Bank, Westfield, NJ
 Accts: Maurilio, Franklin & Lo Brace, Springfield, NJ
 Law Firm: Levin & Weissman, New York City

GENERAL MOTORS CORP-NORTH AMERICAN TRUCK
 (Div General Motors Corp, Detroit)
 1016 West Edgar Road Linden, NJ 07036
 Phone: 908-474-4000
 Products: Motor Vehicles
 SIC: 3711 Etab: 1946
 Emp: 2,500
 Sq.Ft: 1.8Mil Acres: 94
 PltMgr - Richard Monkaba
 PersMgr - Robert Bisciotti

GOMAR MANUFACTURING CO., INC
 1501 West Blanche Street Linden, NJ 07036
 Phone: 908-862-0820
 Products: Metallized, Coated and Laminated Films and Sheetings
 SIC: 3081 3861 Etab: 1946
 Emp: 45
 Sq.Ft: 30,000 Acres: 4
 CEO - P. J. Marks
 COO - L. S. Friedman

GROBSTEIN, DAN, ASSOCIATES
 308 Clinton Street Linden, NJ 07036
 Phone: 908-862-6020
 Products: Typesetting
 SIC: 2791 Etab: 1946
 Sales: \$500M-1MM Emp: 10

H B REGISTRATION CORP
 12 Sherman Street Linden, NJ 07036
 Phone: 908-486-3311
 FAX: 908-925-2572
 Products: Packaging Machinery Controls
 SIC: 3625 Etab: 1946
 Sales: \$500M-1MM Emp: 6
 Pr - A. Marchev

H C TOOL COMPANY
 5 Grant Street Linden, NJ 07036
 Phone: 908-486-5353
 Products: Machining
 SIC: 3599 Etab: 1950
 Emp: 6
 Sq.Ft: 5,200
 Pr - Heinz Czyborra

HAMMER MANUFACTURING CO., INC
 417 Commerce Road Linden, NJ 07036
 Phone: 908-862-1730
 FAX: 908-862-1733
 Products: Metal Stampings and Assemblies
 SIC: 3469 Etab: 1955
 Sales: \$2-5MM Emp: 50
 Sq.Ft: 16,000 Acres: 1
 * ChBd/Tr - Lincoln Ames
 * Pr - William G. Fig
 VP - William J. Fig
 SlsMgr - Steve Dixey
 * Directors, also:
 Theodore A. Pine
 Bank: National Westminster Bank, New York City
 Accts: J. H. Cohn & Company, Roseland, NJ
 Law Firm: Stryker, Tams & Dill, Newark

HANLIN GROUP INC
 (Affil PLC Division, Linden)
 Foot of South Wood Avenue Linden, NJ 07036
 Phone: 908-862-1666
 FAX: 908-864-1618
 Products: Chemicals, Chlorine, Plastic Pipe
 SIC: 2812 2819 3084 Etab: 1961
 Sales: \$100-200MM Emp: 11
 Sq.Ft: 16,500
 CEO Pr - Randall W. Hansen
 Directors:
 J. F. Mathis S. C. Wa
 G. W. Hunter T. P. Va
 Accts: Richard A. Eizner & Comp
 Millburn, NJ
 Law Firm: McCarter & English, Newark

HANSOME ENERGY SYSTEMS, INC
 365 Daiziel Road Linden, NJ 07036
 Phone: 908-862-9044
 FAX: 908-862-8195
 Products: Low Noise AC and DC Elec Motors
 SIC: 3621 Etab: 1961
 Sales: \$10-20MM Emp: 15
 Sq.Ft: 40,000
 * ChBd CEO - Albert Reposi
 * Pr - Selma Rossen
 * Sec - Marvin Ross
 * PA - Samuel Tennebaum
 * Directors
 Bank: Summit Bank, Clark, NJ
 Accts: Paul Roth, Massapequa, NY
 Law Firm: Marvin Ross, Lawrence, NY

HELMUTH INDUSTRIES
 5 Sherman Street Linden, NJ 07036
 Phone: 908-925-2610
 FAX: 908-925-1269
 Products: Plastic Products and Steel Molds
 SIC: 3089 3544 Etab: 1950
 Sales: \$2-5MM Emp: 15
 Sec - Gerald Hoy
 Bank: United Jersey Bank, Linden
 Accts: Lewis & Sternbach, Maplewood, NJ
 Law Firm: Herbert Blaustein, Union, NJ

HILTON CLOTHES INC
 (Sub Hilton Manufacturing Company, Linden)
 35 East Elizabeth Avenue Linden, NJ 07036
 Phone: 908-486-2610
 FAX: 908-486-2803
 Products: Men's Suits, Sport Coats & Slacks
 SIC: 2325 2311 Etab: 1950
 Sales: \$10-20MM Emp: 2
 * ChBd CEO/Pr - Norman Hilton, Jr
 * VP/Tr/Sec - Doug Mieden
 * Directors, also:
 Constance Hilton Tom Hill
 Bank: United Jersey Bank, Linden
 Accts: Kipnis & Karchmer, New York City
 Law Firm: Wilentz, Goldman & Spitz, Woodbridge, NJ

IDEAL STAMPING COMPANY
 315 Cantor Avenue Linden, NJ 07036
 Phone: 908-474-0505
 FAX: 908-474-0705
 Products: Paper Fasteners
 SIC: 3496 Etab: 1950
 Emp: 11
 Owner - Mark Mendelson

INDUSTRIAL MACHINE & ENGINEERING CO, INC
 1807 West Elizabeth Avenue Linden, NJ 07036
 Phone: 908-862-8874
 Products: Screw Machine Products
 SIC: 3451 Etab: 1950
 Sales: \$1-2MM Emp: 15
 Sq.Ft: 15,000
 * Pr - Valeria Peti
 * VP/Tr - Bernard Smith
 * Sec - Steven Peti, Jr
 PA/PltMgr - Joaquim Carlos
 * Directors
 Bank: United Counties Trust Company, Linden
 Accts: Frank Mannuzza & Company, Clark, NJ

IRONBOUND METAL PRODUCTS INC
 (Div Charles Beseler Company, Linden)
 1600 Lower Road Linden, NJ 07036
 Phone: 201-596-1605
 Products: Metal Shelving and Library Units
 SIC: 2542 Etab: 1950
 Sales: \$2-5MM Emp: 15

CALL FOR INFO ON
 CUSTOM MAILING LISTS
 201-445-3000

TABLE 21B. --Synthetic organic chemicals: Pesticides and other organic agricultural chemicals for which U.S. production or sales were reported, identified by manufacturer, 1958 --Continued

Chemical	Manufacturers' identification numbers (according to list in table 23)
PESTICIDES AND OTHER ORGANIC AGRICULTURAL CHEMICALS, CYCLIC--Continued	
*Insecticides--Continued	
*Chlorinated insecticides--Continued	
Heptachlor (Heptachloro-tetrahydromethanoindene)-----	547.
*Hexachlorocyclohexane (Benzene hexachloride)-----	280, 285, 427, 520, 561, 635.
*Lindane-----	427.
Toxaphene (Chlorinated camphene)-----	210.
*1,1,1-Trichloro-2,2-bis(p-chlorophenyl)ethane (DDT)-----	183, 285, 346, 464, 542, 616, 635.
1,1,1-Trichloro-2,2-bis(p-methoxyphenyl)ethane (Methoxy- chlor)-----	512.
2-Cyclohexyl-4,6-dinitrophenol-----	240.
O,O-Diethyl O-(2-isopropyl-4-methyl-6-pyrimidinyl)phos- phorothioate-----	616.
N,N-Diethyltoluamide-----	382.
*O,O-Dimethyl O-(p-nitrophenyl)phosphorothioate (Methyl parathion)-----	117, 449, 502, 547, X.
O,O-Dimethyl S-(4-oxo-1,2,3-benzotriazin-3(4H)-ylmethyl)- phosphorodithioate-----	X.
*Parathion (O,O-Diethyl O-(p-nitrophenyl)phosphorothioate)- Thanite (Isobornyl thiocyanatoacetate)-----	117, 369, 468, 474, 547, X. 210, 303.
*Rodenticides:	
2-Diphenylacetyl-1,3-indandione-----	209.
2-Pivaloyl-1,3-indandione-----	125.
Warfarin (3-(Acetonylbenzyl)-4-hydroxycoumarin)-----	385, 451.
PESTICIDES AND OTHER ORGANIC AGRICULTURAL CHEMICALS, ACYCLIC	
*Fungicides:	
Bis-1,4-bromoacetoxy-butane-2-----	620.
Cadmium succinate-----	627.
Calcium undecenoate (Calcium hendecenoate)-----	450.
Dimethyldithiocarbamic acid, ferric salt (Ferbam)-----	348, 512, 659.
Dimethyldithiocarbamic acid, sodium salt-----	
*Dimethyldithiocarbamic acid, zinc salt (Ziram)-----	348, 417, 432, 512, 567, 631, 659.
Disodium cyanodithioimidocarbonate-----	284.
Ethylene bis(dithiocarbamic acid), diammonium salt-----	659.
Ethylene bis(dithiocarbamic acid), disodium salt (Nabam)-----	88, 512, 659, X.
Ethylene bis(dithiocarbamic acid), manganese salt (Mansate)-----	512, 602.
Ethylene bis(dithiocarbamic acid), zinc salt (Zineb)-----	88, 512, X.
3-Ethyl-(mercurithio)-1,2-propanediol-----	512.
Ethylmercury acetate-----	411, 512.
Ethylmercury chloride-----	411, 512.
Ethylmercury phosphate-----	512.
Hydroxyethylmercury acetate-----	348.
2-Methoxyethylmercury acetate-----	348.
Methylmercury nitrile-----	348.
Sodium undecenoate (Sodium hendecenoate)-----	454.
Zinc undecenoate (Zinc hendecenoate)-----	450, 454.
*Herbicides:	
Butyl phosphorotrithioate-----	X.
Butyl phosphorotrithioate-----	170.
2-Chloroallyl diethyldithiocarbamate-----	117.
N,N-Diallyl-2-chloroacetamide-----	117.
2,2-Dichloropropionic acid, sodium salt-----	240.
Diethyl dithiobis(thionoformate)-----	117, 659.
Dodecylammoniummethyl arsonate-----	620.
Ethyl N,N-di-n-propylthiocarbamate-----	280.
Hexachloroacetone-----	635.
*Methanearsonic acid, disodium salt-----	127, 252, 620.
Octylammoniummethyl arsonate-----	620.
Trichloroacetic acid, sodium salt (TCA)-----	240.
*Insecticides:	
2-(2-Butoxyethoxy)ethyl thiocyanate-----	602.
O,O-Diethyl O-[2-(ethylthio)ethyl]phosphorothioate-----	X.
O,O-Diethyl S-[2-(ethylthio)ethyl]phosphorothioate-----	X.
O,O-Diethyl S-(ethylthio)methylphosphorodithioate-----	474.
Diethyl phosphorochloridothionate-----	449.
O,O-Dimethyl O-(2-methoxycarbonyl)isopropenylphosphate----	502.

See footnote at end of table.

Directory of Manufacturers

The Directory of Manufacturers lists the companies that report their production of synthetic organic chemicals to the U.S. Tariff Commission. The name of each manufacturer is preceded by an identification number.

For 1958, the Directory of Manufacturers lists 677 companies (see table 23), 13 more than for 1957. Some of the companies that report production of synthetic organic chemicals consume their entire output in further manufacturing.

The Directory of Manufacturers lists the companies in two ways. Section 1 lists them in numerical order, the identification number for each company having been assigned in the order in which the Commission received the company's reporting schedule. This system makes it unnecessary to wait until all the schedules are returned before assigning the identification numbers and greatly speeds the preparation of the tables in part III. Section 2 lists the companies in alphabetical order, and gives the company address and plant locations.

TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1958

SECTION 1. NUMERICAL DIRECTORY

[Names of synthetic organic chemical manufacturers who reported production or sales to the U.S. Tariff Commission for 1958 are listed below in the order of their identification numbers as used in tables in pt. III. Sec. 2 of this table lists these manufacturers alphabetically and gives their office and plant addresses]

No.	Name of company	No.	Name of company
1	Robert & Co., Inc.	49	Nonweiler, A. P., Co.
2	Organic Chemical Corp.	50	Ottawa Chemical Co.
3	Gordon Chemical Co., Inc.	51	Peerless Color Co., Inc.
4	Lake States Yeast & Chemical, Div. of Rhinelander Paper Co.	52	Pitt-Consol Chemical Co.
5	Reliance Varnish Co., Inc.	53	Standard Agricultural Chemicals, Inc.
6	Robot Devices, Inc.	54	Van Dyk & Co., Inc.
7	Buckeye Cellulose Corp.	55	Crown Zellerbach Corp., Chemical Products Div.
8	Concord Chemical Co., Inc.	56	Delaware Chemicals, Inc.
9	Coopers Creek Chemical Corp.	57	Farley & Loetscher Manufacturing Co.
10	Farboil Co.	58	Great Western Sugar Co.
11	Farrington, W. U., Estate of	59	Guyan Color & Chemical Works.
12	Farnow, Inc.	60	Huggins, James, & Son, Inc.
13	Hynson, Westcott & Dunning, Inc.	61	Kalide Corp.
14	Lever, C., Co., Inc.	62	Kehew-Bradley Co.
15	Wilmot & Cassidy, Inc.	63	Leatex Chemical Co.
16	Vita-Var Corp.	64	Magnolia Petroleum Co.
17	American Rock Wool Corp.	65	National Casein Co.
18	George, P. D., Co.	66	Organics, Inc.
19	Harbor Plywood Corp.	67	Perry & Derrick Co., Inc.
20	Harris Standard Paint Co., Inc.	68	Simpson Redwood Co.
21	Ironsides Resins, Inc.	69	Wilson Laboratories Div. of Wilson & Co., Inc.
22	Knoedler Chemical Co.	70	Merrell, Wm. S., Co.
23	Mineral Oil Refining Co.	71	Atlantic Chemical Corp.
24	Minnesota Paints, Inc.	72	Kennecott Copper Corp. (Chino Mines Div.)
25	National Biochemical Co.	73	Ritter, F., & Co.
26	Phelan-Faust Paint Manufacturing Co.	74	Davis, H. B., Co.
27	Richardson Co.	75	Emkay Chemical Co.
28	Scholler Bros., Inc.	76	Gordon Chemicals, Inc.
29	Seidlitz Paint & Varnish Co.	77	Insular Chemical Corp.
30	United States Procaine Co., Inc.	78	Keystone Color Works, Inc.
31	General Color Co., Inc.	79	Rock Hill Printing & Finishing Co.
32	Marlowe-Van Loan Corp.	80	Sandoz, Inc., Fine Colors Div.
33	Merkin, M. J., Paint Co., Inc.	81	Solar Chemical Corp.
34	Standard Dyestuffs Corp.	82	American Aniline & Extract Co., Inc.
35	Boysen, Walter N., Co.	83	American Marietta Co. (Ferber-Schorndorfer Co. Div.)
36	American Bio-Synthetics Corp.	84	Armstrong Cork Co.
37	Jamestown Paint & Varnish Co.	85	Bennett's.
38	McWhorter Chemicals, Inc.	86	American Marietta Co. (Booty Resineers Div.)
39	Northwestern Chemical Co.	87	Cabot, Samuel, Inc.
40	Polyrez Co., Inc.	88	Chemical Insecticide Corp.
41	Red Spot Paint & Varnish Co., Inc.	89	Clover Chemical Co.
42	Sipe, James B., & Co.	90	Delhi-Taylor Oil Corp.
43	Watertown Manufacturing Co.	91	Florida Chemical Co., Inc.
44	Crownoil Chemical Co., Inc.	92	Fuller, H. B., Co., of Ohio.
45	Triangle Chemical Co.	93	General Foods Corp., Maxwell House Div.
46	Witte, John H., & Sons, Resin Div.	94	International Minerals & Chemical Corp.
47	Hanna Paint Manufacturing Co., Industrial Div.	95	Amalgamated Chemical Corp.
48	Nilok Chemicals, Inc.	96	Amchem Products, Inc.
		97	Apex Chemical Co., Inc.

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TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1958 --Continued

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Div.)

No.	Name of company	No.	Name of company
98	Atlas Refinery, Inc.	167	Synthetic Products Co.
99	Crosby Chemicals, Inc.	168	Tousey Varnish Co.
100	Meyer, J., & Sons, Inc.	169	United States Pipe & Foundry Co.
101	Stansbury Chemical Co., Inc.	170	Virginia-Carolina Chemical Corp.
102	Cadet Chemical Corp.	171	American Oil Co. (Texas)
103	California Spray Chemical Corp.	172	Productol Co.
104	Escambia Chemical Corp.	173	Chemico, Inc.
105	Foremost Food & Chemical Co., El Dorado Div.	174	Crown Chemical Corp.
106	Halby Products Co., Inc.	175	Kendall Refining Co.
107	Jewel Paint & Varnish Co.	176	Mona Industries, Inc.
108	Jones-Blair Paint Co., Inc.	177	Nelson-Wells & Co.
109	Kyanize Paints, Inc.	178	Dr. Salsbury's Laboratories.
110	Leffingwell Chemical Co.	179	American Maize Products Co.
111	Lueders, George, & Co.	180	Continental-Diamond Fibre Corp.
112	Miranol Chemical Co., Inc.	181	Dow Corning Corp.
113	Remington Arms Co., Inc.	182	LaMotte Chemical Products Co.
114	Salvo Chemical Corp.	183	Lebanon Chemical Corp.
115	Warner-Jenkinson Manufacturing Co.	184	Ohio Chemical & Surgical Equipment Co.
116	Marx, Max, Color & Chemical Co.	185	Rubber Corp. of America.
117	Monsanto Chemical Co.	186	Summit Chemical Products Corp.
118	Rayette, Inc., Chemical Div.	187	Baker Castor Oil Co.
119	Standard-Toch-Chemicals, Inc.	188	Armour & Co. (Armour Pharmaceutical Co. Div.)
120	Jergens, Andrew, Co.	189	Burkart-Schier Chemical Co.
121	Olin Mathieson Chemical Corp. (Blockson Chemical Co. Div.)	190	Chemlek Laboratories, Inc.
122	Keysor Chemical Co.	191	Grant, Foster, Co., Inc.
123	Sonneborn, L., Sons, Inc.	192	Kohnstamm, H., & Co., Inc.
124	Spencer Chemical Co.	193	Lyle Branchflower Co.
125	Motomco, Inc.	194	Borg-Warner Corp., Marbon Chemical Div.
126	Ad-Co Color Corp.	195	Vanderbilt Chemical Corp.
127	Ansul Chemical Co.	196	Arapahoe Chemicals, Inc., & Arapahoe Special Products, Inc.
128	Carpenter-Morton Co.	197	Arco Co.
129	Copolymer Rubber & Chemical Corp.	198	Drug Processors, Inc.
130	Odessa Butadiene Co.	199	Leonard Refineries, Inc.
131	Old Hickory Chemical Co., Inc.	200	Marathon Div. of American Can Co., Chemical Sales Dept.
132	Ortho Chemical Corp.	201	New York & Pennsylvania Co., Inc.
133	Osborn, C. J., Co.	202	Perkins Glue Co.
134	Ottol Oil Co.	203	Presto Plastic Products Co., Inc.
135	Werner Drug & Chemical Co.	204	Purex Corp., Ltd.
136	American Marietta Co.	205	Richfield Oil Corp.
137	Gilman Paint & Varnish Co.	206	Riker Laboratories, Inc.
138	Deere & Co., Grand River Chemical Div.	207	Siddall, George F., Co., Inc.
139	Greenwood Textile Supply Co.	208	Universal Detergents, Inc.
140	Parsons, M. W., Plymouth, Inc.	209	Nease Chemical Co., Inc.
141	Phoenix Oil Co.	210	Hercules Powder Co.
142	Poughkeepsie Dyestuff Corp.	211	Hodag Chemical Corp.
143	Soluol Chemical Co., Inc.	212	Berkshire Color & Chemical Co.
144	Synvar Corp.	213	Fairmount Chemical Co., Inc.
145	Trask, Arthur C., Co.	214	Trojan Powder Co.
146	Westinghouse Electric Corp.	215	Uhlich, Paul, & Co., Inc.
147	Alox Corp.	216	Armour & Co. (Chemical Div.)
148	American Synthetic Rubber Corp.	217	Edcan Laboratories.
149	Baker, J. T., Chemical Co. (Taylor Chemical Div.)	218	Grace, W. R., & Co. (Dewey & Almy Chemical Co. Div.)
150	Bates Chemical Co.	219	International Paper Co.
151	Cosden Petroleum Corp.	220	Metro-Atlantic, Inc.
152	Crown Tar & Chemical Works, Inc.	221	Allied Chemical Corp. (National Aniline Div.)
153	Edison, Thomas A., Industries, McGraw-Edison Co.	222	R. S. A. Corp.
154	Firestone Tire & Rubber Co. (Synthetic Rubber & Latex Div.)	223	Raybestos Div. of Raybestos-Manhattan, Inc.
155	Grace, W. R., & Co. (Grace Chemical Co. Div.)	224	Refined Products Corp.
156	Grain Processing Corp.	225	Sterling Drug, Inc. (Winthrop Laboratories Div.)
157	Heterochemical Corp.	226	American Viscose Corp.
158	Jones-Dabney Co.	227	American Viscose Corp. (Film Div.)
159	Kennecott Copper Corp. (Utah Copper Div.)	228	Proctor Chemical Co., Inc.
160	Moretex Chemical Products, Inc.	229	Shepherd Chemical Co.
161	Pennsylvania Industrial Chemical Corp.	230	Standard Chemical Products, Inc.
162	Pennsylvania Refining Co.	231	Paul-Lewis Laboratories, Inc.
163	Petro-Tex Chemical Corp.	232	United Rubber & Chemical Co.
164	Pratt & Lambert, Inc.	233	Wetherill, George D., Varnish Co.
165	Spaulding Fibre Co., Inc.	234	Kali Manufacturing Co.
166	Suntide Refining Co.	235	Laros, R. K., Co.
		236	Schwarz Laboratories, Inc.
		237	Carus Chemical Co., Inc.

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TABLE 23. -- *Synthetic organic chemicals: Directory of manufacturers, 1958* --Continued

No.	Name of company	No.	Name of company
238	Chemstrand Corp.	304	Patent Chemicals, Inc.
239	Dickinson Briquetting Co.	305	Stein, Hall & Co., Inc.
240	Dow Chemical Co.	306	Synthetic Chemicals, Inc.
241	General Petroleum Corp.	307	Varcum Chemical Corp.
242	Hooker Chemical Corp. (Durez Plastics Div.)	308	Union Oil Co. of California.
243	Long, Charles R., Jr., Co.	309	United States Borax Research Corp.
244	U. S. Plastic Products Corp.	310	Florasynth Laboratories, Inc.
245	Puget Sound Pulp & Timber Co.	311	Levey, Fred'k. H., Co., Inc.
246	Standard Chlorine Chemical Co., Inc.	312	Minnesota Mining & Manufacturing Co.
247	Standard Ultramarine & Color Co.	313	Moore, Benjamin, & Co.
248	Texas-U. S. Chemical Co.	314	Petroleum Chemicals, Inc.
249	Thompson-Hayward Chemical Co.	315	Roma Chemical Corp.
250	Burroughs-Wellcome & Co. (U.S.A.), Inc.	316	Royce Chemical Co.
251	Sandoz, Inc.	317	Texas Co.
252	Cleary, W. A., Corp.	318	Wallace & Tiernan, Inc. (Lucidol Div.)
253	Frisch & Co., Inc.	319	Crown Central Petroleum Corp.
254	General Electric Co.	320	Fries Bros., Inc.
255	Peerless Chemical Co., Inc.	321	Verley Chemical Co., Inc.
256	Standard Naphthalene Products Co., Inc.	322	Bird & Son, Inc., Floor Covering Div.
257	Food Machinery & Chemical Corp. (Fine Chemicals Dept.)	323	Felton Chemical Co., Inc.
258	Taylor Fibre Co.	324	Food Machinery & Chemical Corp. (Chemicals & Plastics Div.)
259	City Chemical Corp.	325	Gillock Chemical Co.
260	Consolidated Paint Co.	326	Kay-Fries Chemicals, Inc.
261	France, Campbell & Darling, Inc.	327	Texas Butadiene & Chemical Corp.
262	Heyden Newport Chemical Corp. (Newport Industries Co. Div.)	328	Tex Chemical Co.
263	Appleton Coated Paper Co.	329	Beech-Nut Life Savers, Inc.
264	Carlisle Chemical Works, Inc.	330	General Mills, Inc.
265	Cook Paint & Varnish Co.	331	Hoechst Chemical Corp.
266	Maney, Paul, Laboratories, Inc.	332	Pan American Petroleum Corp.
267	Atlas Processing Co.	333	Socony Paint Products Co.
268	Hartman-Leddon Co.	334	Dykem Co.
269	Specific Pharmaceuticals, Inc.	335	Gane's Chemical Works, Inc.
270	American Alcolac Corp.	336	Pfister Chemical Works, Inc.
271	Calhio Chemicals, Inc.	337	Federal Color Laboratories, Inc.
272	Chemical Products Corp.	338	Gulf Oil Corp.
273	Detrex Chemical Industries, Inc.	339	Holland Color & Chemical Co.
274	Dye Specialties Corp., Inc.	340	Keystone Chemurgic Corp.
275	Ethyl-Dow Chemical Co.	341	Northwest Natural Gas Co.
276	Medical Chemicals Corp.	342	Schering Corp.
277	Morwear Paint Co.	343	Shell Oil Co.
278	Olin Mathieson Chemical Corp. (Squibb, E. R., & Sons Div.)	344	Smith, Kline & French Laboratories.
279	Southern Textile Chemical Corp.	345	Ciba Pharmaceutical Products, Inc.
280	Stauffer Chemical Co.	346	Olin Mathieson Chemical Corp.
281	Western Dry Color Co.	347	Chemfax, Inc.
282	Wheeler, Reynolds & Stauffer.	348	Berk, F. W., & Co., Inc.
283	Food Machinery & Chemical Corp. (Westvaco Chlor-Alkali Div. & Westvaco Mineral Products Div.)	349	Catalin Corp. of America.
284	Buckman Laboratories, Inc.	350	Foster-Heaton Co.
285	Diamond Alkali Co.	351	National Lead Co.
286	Laurel Soap Manufacturing Co., Inc.	352	Bryant Chemical Corp.
287	Pfanstiehl Laboratories, Inc.	353	Firestone Tire & Rubber Co. (Firestone Plastics Co. Div.)
288	Brown Co.	354	Interchemical Corp. (Color & Chemicals Div.)
289	Cockerville, Inc.	355	New York Color & Chemical Co., Div. of American Dyewood Co.
290	DeSoto Paint and Varnish Co.	356	Old Colony Tar Co., Inc.
291	Kessler Chemical Co., Inc.	357	Ruberoid Co.
292	Knapp Products, Inc.	358	Schaefer Varnish Co., Inc.
293	Lever Brothers Co.	359	Industrial Dyestuff Co.
294	American Marietta Co. (Sinclair & Valentine Co. Div.)	360	Jordan, Jr., W. H. & F., Manufacturing Co.
295	Solvent Chemical Co., Inc.	361	Nepera Chemical Co., Div. of Warner-Lambert Pharmaceutical Co., Inc.
296	Tennessee Corp.	362	Neville Chemical Co.
297	Thompson Chemical Co.	363	Quaker Oats Co.
298	Diversey Corp.	364	Sheffield Chemical Co., Div. of National Dairy Products Corp.
299	Harshaw Chemical Co.	365	Baltimore Paint and Chemical Corp.
300	Merichem Co., Div. of Jefferson Lake Sulphur Co.	366	Givaudan Corp.
301	Rinshed-Mason Co.	367	Humble Oil and Refining Co.
302	Southern Sizing Co.	368	Pabst Brewing Co.
303	Baker, J. T., Chemical Co.	369	Pittsburgh Coke & Chemical Co.
		370	American-Marietta Co. (Southern Dyestuff Co. Div.)
		371	Witco Chemical Co., Inc.

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TABLE 23. -- Synthetic organic chemicals: Directory of manufacturers, 1958--Continued

No.	Name of company	No.	Name of company
372	Benzol Products Co.	442	Magruder Color Co., Inc.
373	Sun Chemical Corp. (Warwick Chemical Co. Div.)	443	National Petro-Chemicals Corp.
374	Allied Chemical Corp. (Semet-Solvay Petro-chemical Div.)	444	Peck's Products Co.
375	Kelly, John F., Co.	445	Sohio Petroleum Co.
376	Maywood Chemical Works.	446	Southern Resin Glue Co.
377	Orbis Products Corp.	447	Tennessee Products & Chemical Corp.
378	Stange, Wm. J., Co.	448	U. S. Industrial Chemicals Co., Div. of National Distillers & Chemical Corp.
379	Brown, Andrew, Co.	449	Victor Chemical Works.
380	Chemical Manufacturing Co., Inc.	450	Wallace & Tiernan, Inc.
381	Chemical Process Co.	451	Abbott Laboratories,
382	Cowles Chemical Co.	452	Acme Resin Corp.
383	Dawe's Laboratories, Inc.	453	Atlas Powder Co.
384	Fuller, W. P., & Co.	454	Berkeley Chemical Corp.
385	Penick, S. B., & Co.	455	Eddystone Manufacturing Co.
386	Phillips Chemical Co.	456	Endo Laboratories, Inc.
387	Publicker Industries, Inc.	457	Evans Chemetics, Inc.
388	Tar Distilling Co., Inc.	458	Farmers' Chemical Co.
389	Wallace & Tiernan, Inc. (Harchem Div.)	459	Grand Rapids Varnish Corp.
390	Dexter Chemical Corp.	460	Great Southern Chemical Corp.
391	Dominion Products, Inc.	461	Heresite & Chemical Co.
392	Maumee Chemical Co.	462	Krystall Chemical Co.
393	Procter & Gamble Manufacturing Co.	463	Marblette Corp.
394	Archer-Daniels-Midland Co.	464	Michigan Chemical Corp.
395	Carwin Co.	465	Miles Laboratories, Inc.
396	Central Paint & Varnish Works, Inc.	466	Odessa Styrene Co.
397	Ciba Products Corp.	467	U B S Chemical Corp.
398	Delmar Chemical Co., Inc.	468	American Potash & Chemical Corp.
399	Fritzsche Bros., Inc.	469	Dodd, Donald A.
400	Morton Chemical Co.	470	Collway Colors, Inc.
401	S & W Chemical Co., Inc.	471	Heyden Newport Chemical Corp.
402	Schuylkill Chemical Co.	472	van Ameringen-Haebler, Div. of International Flavors and Fragrances, Inc.
403	Washburn, T. F., Co.	473	Atlantic Refining Co.
404	Alkydol Laboratories, Inc.	474	American Cyanamid Co.
405	Capital Plastics, Inc.	475	Coast Paint & Lacquer Co.
406	Chemagro Corp.	476	DePaul Chemical Co., Inc.
407	Esso Standard Oil Co.	477	Esso Standard Oil Co. (Louisiana Div.)
408	General Tire & Rubber Co., Chemical Div.	478	Hexagon Laboratories, Inc.
409	H. M. Chemical Co., Ltd.	479	Standard Oil Co. of Indiana,
410	Harsyd Chemicals, Inc.	480	Upjohn Co.
411	Metalsalts Corp.	481	Quaker Chemical Products Corp.
412	Seamco Chemical Co.	482	Riverdale Chemical Co.
413	Sterling Drug, Inc. (Hilton-Davis Chemical Co. Div.)	483	Deacy Products Co.
414	Treplow Products, Inc.	484	Parke, Davis & Co.
415	United Cork Co.	485	Sinclair Refining Co.
416	Whittemore-Wright Co., Inc.	486	Hoffmann-LaRoche, Inc.
417	Alco Oil & Chemical Corp.	487	Koppers Co., Inc. (Chemicals & Dyestuffs Div.)
418	Dan River Mills, Inc.	488	Synco Resins, Inc.
419	Douglas Chemical Corp.	489	Union Carbide Corp. (Silicones Div.)
420	Ethyl Corp.	490	Sun Oil Co.
421	Humphrey-Wilkinson, Inc.	491	Warren Paint & Color Co.
422	Oronite Chemical Co.	492	Althouse Chemical Co., Inc.
423	Colgate-Palmolive Co.	493	Universal Oil Products Co. (Universal Polychem Manufacturing Div.)
424	Commonwealth Color & Chemical Co.	494	Bristol Laboratories, Inc.
425	Corn Products Co.	495	Childs Pulp Colors, Inc.
426	Heyden Newport Chemical Corp. (Nuodex Products Co. Div.)	496	Clinton Corn Processing Co., Div. of Standard Brands, Inc.
427	Hooker Chemical Corp.	497	Continental Oil Co.
428	Marden-Wild Corp.	498	Fiber Chemical Corp.
429	Grace, W. R., & Co. (Polymer Chemicals Div.)	499	Fibreboard Paper Products Corp.
430	Shawinigan Resins Corp.	500	Midland Industrial Finishes Co.
431	U. S. Oil Co.	501	Pure Oil Co.
432	U. S. Rubber Co., Naugatuck Chemical Div.	502	Shell Chemical Corp.
433	Colton Chemical Co., Div. of Air Reduction Co., Inc.	503	Stresen-Reuter, Fred'k., A., Inc.
434	Kentucky Color & Chemical Co., Inc.	504	Petrolite Corp., Tretolite Co. Div.
435	Pilot California Co.	505	Brooklyn Color Works, Inc.
436	Plastics Engineering Co.	506	Koppers Co., Inc. (Plastics Div.)
437	Bios Laboratories, Inc.	507	Union Carbide Corp. (Union Carbide Plastics Co. Div.)
438	Delta Chemical Works, Inc.	508	Advance Solvents & Chemical Div. of Carlisle Chemical Works, Inc.
439	Lemke, B. L., & Co., Inc.		
440	Allied Chemical Corp. (Solvay Process Div.)		
441	Lilly, Eli, & Co.		

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TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1958--Continued

No.	Name of company	No.	Name of company
509	Astra Pharmaceutical Products, Inc.	579	Glyco Chemicals, Div. of Chas. L. Hulsing & Co., Inc.
510	Nopco Chemical Co., Inc.	580	Sun Chemical Corp. (Pigment Div.)
511	Phillips Petroleum Co.	581	Ultra Chemical Works, Inc., Div. of Witco Chemical Co.
512	duPont de Nemours, E. I., & Co., Inc.	582	American Alkyd Industries.
513	Planetary Chemical Co., Inc.	583	Ampruf Paint Co. of N. J., Inc.
514	Crown Chemical Co., Div. of Joseph Turner & Co.	584	Callery Chemical Co.
515	Helene Curtis Industries, Inc.	585	Cary Chemicals, Inc.
516	Concord Dyeing & Finishing Co., Inc.	586	Gamma Chemical Corp.
517	Hall, C. P., Co. of Illinois.	587	Stauffer Chemical Co., Anderson Chemical Co. Div.
518	Hoffman-Taff, Inc.	588	Columbia Organic Chemicals, Inc.
519	Lakeside Laboratories, Inc.	589	Goodrich, B. F., Co., B. F. Goodrich Chemical Co. Div.
520	Pittsburgh Plate Glass Co.	590	National Southern Products Corp.
521	Sherwin-Williams Co.	591	Thiokol Chemical Corp.
522	Swift & Co.	592	Bioferm Corp.
523	Wilson Organic Chemicals, Inc.	593	California Ink Co., Inc.
524	Woonsocket Color & Chemical Co.	594	Eastern States Petroleum & Chemical Corp.
525	General Aniline & Film Corp., Dyestuff & Chemical Div.	595	Eastman Kodak Co.
526	Coastwise Petroleum Co.	596	Johnson, S. C., & Son, Inc.
527	McCloskey Varnish Co.	597	O'Brien Corp.
528	Thomasset Colors, Inc.	598	Poly Resins, Inc.
529	Allied Chemical Corp. (Nitrogen Div.)	599	Premium Chemicals, Inc.
530	Interchemical Corp. (Finishes Div.)	600	Rezolin, Inc.
531	Searle, G. D., & Co.	601	Ritter Chemical Co., Inc.
532	Westville Laboratories.	602	Rohm & Haas Co.
533	Commercial Solvents Corp.	603	Visco Products Co.
534	Eakins, J. S. & W. R., Inc.	604	White & Bagley Co.
535	Ames Laboratories, Inc.	605	Great American Plastics Co.
536	Ansbacher-Siegle Corp., Div. of Sun Chemical Corp.	606	Meta Chemical Corp.
537	Scherer, R. P., Corp.	607	Dunne, Frank W., Co.
538	Vitamins, Inc.	608	Fine Organics, Inc.
539	Colonial Sugars Co.	609	Krumbhaar Chemicals, Inc.
540	Koppers Co., Inc. (Tar Products Div.)	610	Norda Essential Oil & Chemical Co., Inc.
541	Lewis Tar Products Co.	611	Hampden Color & Chemical Co.
542	Montrose Chemical Corp. of California.	612	Specialty Resins Co.
543	Chemo-Puro Manufacturing Corp.	613	Standard Oil Co. of California, Western Operations, Inc.
544	Air Reduction Chemical Co.	614	White & Hodges, Inc.
545	Collett-Week Corp.	615	Celanese Corp. of America.
546	Morningstar Paisley, Inc.	616	Geigy Chemical Corp.
547	Velsicol Chemical Corp.	617	Emery Industries, Inc.
548	Hart Products Corp.	618	Jefferson Chemical Co., Inc.
549	Goodrich-Gulf Chemicals, Inc.	619	Kilsdonk Chemical Corp.
550	Oil & Chemical Products, Inc.	620	Vineland Chemical Co.
551	Surfact-Co., Inc.	621	Union Carbide Chemicals Co., Div. of Union Carbide Corp.
552	Tanner, Charles S., Co.	622	Maas & Waldstein Co.
553	Arnold, Hoffman & Co., Inc.	623	Blackman, Stanley, Laboratories, Inc.
554	Imperial Color Chemical & Paper Corp.	624	Mobay Chemical Co.
555	Augusta Chemical Co.	625	Polychemical Laboratories, Inc.
556	Jennison-Wright Corp.	626	Allied Chemical Corp. (Plastics & Coal Chemicals Div.)
557	Reilly Tar & Chemical Corp.	627	Mallinckrodt Chemical Works.
558	Republic Creosoting Co.	628	Erdmann Chemical Co., Inc.
559	Cutter Laboratories.	629	Merck & Co., Inc.
560	Bruder, M. A., & Sons, Inc.	630	Wyeth Laboratories, Inc., Div. of American Home Products Corp.
561	Frontier Chemical Co., Div. of Vulcan Materials Co.	631	Pennsalt Chemicals Corp.
562	Kolker Chemical Corp.	632	Industrial Products, Inc.
563	National Polychemicals, Inc.	633	Wica Co., Inc.
564	Staley, A. E., Manufacturing Co.	634	Alliance Color & Chemical Co.
565	Trubek Laboratories.	635	Allied Chemical Corp. (General Chemical Div.)
566	Permutit Co., Div. of Pfaunder Permutit, Inc.	636	Drew, E. F., & Co., Inc.
567	Goodyear Tire & Rubber Co.	637	Valchem.
568	Belle Chemical Co., Inc.	638	Ashland Oil & Refining Co.
569	Wyandotte Chemicals Corp.	639	Young Aniline Works, Inc.
570	Freeman Chemical Corp.	640	Onyx Oil & Chemical Co.
571	Wolf, Jacques, & Co.	641	Shulton, Inc.
572	Armstrong Paint & Varnish Works, Inc.	642	Gordon-Lacey Chemical Products Co., Inc.
573	Borden Chemical Co.	643	Inland Steel Container Co.
574	Keystone Paint & Varnish Corp.	644	Montrose Chemical Co.
575	LaSalle Chemical Co.	645	Houghton, E. F., & Co.
576	Eastman Kodak Co., Texas Eastman Co. Div.		
577	Eastman Kodak Co., Tennessee Eastman Co. Div.		
578	Sumner Chemical Co., Div. of Miles Laboratories, Inc.		

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TABLE 23. -- *Synthetic organic chemicals: Directory of manufacturers, 1958* -- Continued

No.	Name of company	No.	Name of company
646	Pfizer, Charles, & Co., Inc.	662	Process Chemicals Co.
647	Loven Chemical Co. of California.	663	Calcasieu Chemical Corp.
648	Norwich Pharmacal Co.	664	Bzura, Inc.
649	Glidden Co.	665	Sterling Drug, Inc. (National Brands Div.)
650	Verona-Pharma Chemical Corp.	666	Vickers Petroleum Co., Inc.
651	May, Otto B., Inc.	667	Schenectady Varnish Co., Inc.
652	Stepan Chemical Co.	668	Sonoco Products Co.
653	Alframine Corp.	669	Synthron, Inc.
654	Reichhold Chemicals, Inc.	670	Food Machinery & Chemical Corp. (Becco Chemicals Div.)
655	Toms River-Cincinnati Chemical Corp.	671	Gallowhur Chemical Corp.
656	Universal Western Chemical Corp.	672	McGean Chemical Co.
657	King, O. L., & Co.	673	Thompson Chemicals Corp.
658	West Virginia Pulp & Paper Co., Polychemicals Div.	674	National Starch Products, Inc.
659	Roberts Chemicals, Inc.	675	Pantasote Co., Eleanora Chemical Div.
660	Lubrizol Corp.	676	Hooker Chemical Corp., Phosphorus Div.
661	Ferro Chemical Corp.	677	Chase Chemical Corp.

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TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1958--Continued

SECTION 2. ALPHABETICAL DIRECTORY

[Names of synthetic organic chemical manufacturers who reported production or sales to the U.S. Tariff Commission for 1958 are listed below alphabetically, together with their identification numbers as used in tables in pt. III. Sec. 1 of this table lists these manufacturers in the order of their identification numbers]

No.	Name of company	Office address (location of plant given in parentheses if not in same city as office)
451	Abbott Laboratories-----	14th St. and Sheridan Rd., North Chicago, Ill.
452	Acme Resin Corp-----	1401 Circle Ave., Forest Park, Ill.
126	Ad-Co Color Corp-----	66 Lister Ave., Newark 5, N.J.
508	Advance Solvents & Chemical Div. of Carlisle Chemical Works, Inc.	500 Jersey Ave., New Brunswick, N.J.
544	Air Reduction Chemical Co-----	150 E. 42d St., New York 17, N.Y. (Calvert City, Ky., and Bound Brook, N.J.).
417	Alco Oil & Chemical Corp-----	Trenton Ave. and William St., Philadelphia 34, Pa.
653	Alframine Corp-----	72-76 Putnam St., Paterson 4, N.J.
404	Alkydol Laboratories, Inc-----	3242 S. 50th Ave., Cicero 50, Ill.
634	Alliance Color & Chemical Co----- Allied Chemical Corp.:	33 Avenue P, Newark 5, N.J.
635	General Chemical Div-----	40 Rector St., New York 6, N.Y. (Danville, Ill.; Baton Rouge, La. Baltimore, Md.; Buffalo, N.Y.; and Marcus Hook, Pa.).
221	National Aniline Div-----	40 Rector St., New York 6, N.Y. (Buffalo, N.Y.; Hopewell, Va.; and Mountsville, W. Va.).
529	Nitrogen Div-----	40 Rector St., New York 6, N.Y. (Omaha, Nebr.; South Point, Ohio; and Orange, Tex.).
626	Plastics & Coal Chemicals Div-----	40 Rector St., New York 6, N.Y. (Fairfield, Ala.; Calumet City and Chicago, Ill.; Detroit, Mich.; Edgewater and Whippany, N.J.; Ironton, Toledo, and Youngstown, Ohio; and Bethlehem, Frankfurt, and Philadelphia, Pa.).
374	Semet-Solvay Petrochemical Div-----	40 Rector St., New York 6 (Tonawanda), N.Y.
440	Solvay Process Div-----	P.O. Box 271, Syracuse 1 (Solvay Village), N.Y.
147	Alox Corp-----	3943 Buffalo Ave., Niagara Falls, N.Y.
492	Althouse Chemical Co., Inc-----	540 Pear St., Reading, Pa.
95	Amalgamated Chemical Corp-----	Ontario and Rorer Sts., Philadelphia 34, Pa.
96	Amchem Products, Inc-----	Ambler, Pa.
270	American Alcolac Corp-----	3440 Fairfield Rd., Baltimore 26, Md.
582	American Alkyd Industries-----	Broad and 14th Sts., Carlstadt, N.J.
82	American Aniline & Extract Co., Inc---	Venango and F Sts., Philadelphia 34, Pa.
36	American Bio-Synthetics Corp-----	710 W. National Ave., Milwaukee 4, Wis.
474	American Cyanamid Co-----	30 Rockefeller Plaza, New York 20, N.Y. (Azusa, Calif.; Stamford, Wallingford, Conn.; Avondale, La.; Bound Brook, Linden, Newark, Princeton, and Woodbridge, N.J.; Pearl River, N.Y.; Charlotte, N.C.; Marietta, Ohio; Bridgeville, Pa.; Damascus, Va.; and Willow Island, W. Va.).
179	American Maize Products Co-----	250 Park Ave., New York 17, N.Y.
136	American Marietta Co-----	3400 13th Ave., SW., Seattle 4, Wash.
86	Booty Resiners Div-----	42 S. 3d St., Newark, Ohio.
83	Ferbert-Schornborfer Co. Div-----	12815 Elmwood Ave., Cleveland 11, Ohio.
294	Sinclair & Valentine Co. Div-----	611 W. 129th St., New York 27, N.Y.
370	Southern Dyestuff Co. Div-----	P.O. Box 10098, Charlotte 1, N.C.
171	American Oil Co. (Texas)-----	P.O. Box 401, Texas City, Tex.
468	American Potash & Chemical Corp-----	3000 W. 6th St., Los Angeles 54 (Vernon), Calif.
17	American Rock Wool Corp-----	401 Arlington Ave., Torrance, Calif.
148	American Synthetic Rubber Corp-----	P.O. Box 360, Louisville 1, Ky.
226	American Viscose Corp-----	1617 Pennsylvania Blvd., Philadelphia 3 (Meadville), Pa.
227	Film Div-----	1617 Pennsylvania Blvd., Philadelphia 3, Pa. (Meadville, Pa., and Fredericksburg, Va.).
535	Ames Laboratories, Inc-----	132 Water St., S. Norwalk, Conn.
583	Ampruf Paint Co. of N.J., Inc-----	416 Boulevard, E. Paterson, N.J.
536	Ansbacher-Siegle Corp., Div. of Sun Chemical Corp.	92 Chestnut Ave., Staten Island 5, N.Y.
127	Ansul Chemical Co-----	1 Stanton St., Marinette, Wis.
97	Apex Chemical Co., Inc-----	200 S. First St., Elizabethport 1, N.J.
263	Appleton Coated Paper Co-----	1200 N. Meade St., Appleton, Wis.
196	Arapahoe Chemicals, Inc., & Arapahoe Special Products, Inc.	2800 Pearl St., Boulder, Colo.
394	Archer-Daniels-Midland Co-----	700 Investors Bldg., Minneapolis 2, Minn. (Los Angeles, Calif.; Pensacola, Fla.; Minneapolis, Minn.; Valley Park, Mo.; and New N.J.).
197	Arco Co-----	7301 Bessemer Ave., Cleveland 27, Ohio.
	Armour & Co.:	
188	Armour Pharmaceutical Co. Div-----	Box 511, Kankakee (Bradley), Ill.
216	Chemical Div-----	1355 W. 31st St., Chicago 9 (McCook), Ill.

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TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1958--Continued

No.	Name of company	Office address (location of plant given in parentheses if not in same city as office)
84	Armstrong Cork Co-----	W. Liberty St., Lancaster (Pittsburgh), Pa.
572	Armstrong Paint & Varnish Works, Inc--	1318-1500 S. Kilbourn Ave., Chicago 23, Ill.
553	Arnold, Hoffman & Co., Inc-----	55 Canal St., Providence 1, R.I. (Dighton, Mass.; Charlotte, N.C.; and Cincinnati, Ohio).
638	Ashland Oil & Refining Co-----	1401 Winchester Ave., Ashland, Ky. (Tonawanda, N.Y.).
509	Astra Pharmaceutical Products, Inc----	7-1/2 Neponset St., Worcester 6, Mass.
71	Atlantic Chemical Corp-----	153 Prospect St., Passaic (Nutley), N.J.
473	Atlantic Refining Co-----	260 S. Broad St., Philadelphia 1, Pa. (Port Arthur, Tex.).
453	Atlas Powder Co-----	New Murray Road & Concord Pike, Wilmington 99, Del. (New Castle, Del.; Memphis, Tenn.; and Houston, Tex.).
267	Atlas Processing Co-----	P.O. Box 1786, 3546 Midway St., Shreveport, La.
98	Atlas Refinery, Inc-----	142 Lockwood St., Newark 5, N.J.
555	Augusta Chemical Co-----	P.O. Box 660, Augusta, Ga.
187	Baker Castor Oil Co-----	40 Avenue A, Bayonne, N.J. (Los Angeles, Calif.).
303	Baker, J. T., Chemical Co-----	600 N. Broad St., Phillipsburg, N.J.
149	Taylor Chemical Div-----	600 N. Broad St., Phillipsburg, N.J. (Penn Yan, N.Y.).
365	Baltimore Paint & Chemical Corp-----	2325 Annapolis Ave., Baltimore 30, Md.
150	Bates Chemical Co-----	Scottdale Rd., Lansdowne, Pa.
329	Beech-Nut Life Savers, Inc-----	Canajoharie, N.Y.
568	Belle Chemical Co., Inc-----	534 Pearl St., Reading, Pa.
85	Bennett's-----	65 W. 1st South St., Salt Lake City 10, Utah.
372	Benzol Products Co-----	237 South St., Newark 5 (Nixon), N.J.
348	Berk, F. W., & Co., Inc-----	Park Pl., E., Wood-Ridge, N.J.
454	Berkeley Chemical Corp-----	11 Summit Ave., Berkeley Heights, N.J.
212	Berkshire Color & Chemical Co-----	250 Delawanna Ave., Delawanna, N.J. (Reading, Pa.).
592	Bioform Corp-----	703 5th St., P.O. Box 1375, Wasco, Calif.
437	Bios Laboratories, Inc-----	17 W. 60th St., New York 23, N.Y.
322	Bird & Son, Inc., Floor Covering Div--	East Walpole (Norwood), Mass.
623	Blackman, Stanley, Laboratories, Inc--	111 Wesley St., S. Hackensack, N.J.
573	Borden Chemical Co-----	350 Madison Ave., New York 17, N.Y. (Demopolis, Ala.; Los Angeles and Santa Barbara, Calif.; Chicago and Illinois, Ill.; Leominster, North Andover, and Peabody, Mass.; Middlesex, N.J.; Bainbridge, N.Y.; Fayetteville, N.C.; Springfield, Oreg.; Kent and Seattle, Wash.; and Brownstown, Wis.).
194	Borg-Warner Corp., Marbon Chemical Div	Box 68, Washington, W. Va.
35	Boysen, Walter N., Co-----	1001 42d St., Oakland 8, Calif.
494	Bristol Laboratories, Inc-----	P.O. Box 657, Syracuse 1, N.Y.
505	Brooklyn Color Works, Inc-----	Morgan & Norman Aves., Brooklyn 22, N.Y.
288	Brown Co-----	650 Main St., Berlin, N.H.
379	Brown, Andrew, Co-----	5431 District Blvd., Los Angeles 22, Calif.
560	Bruder, M. A., & Sons, Inc-----	52d and Grays Ave., Philadelphia 43, Pa.
352	Bryant Chemical Corp-----	6 North St., N. Quincy 71, Mass.
7	Buckeye Cellulose Corp-----	P.O. Box 539, Cincinnati 1, Ohio (Memphis, Tenn.).
284	Buckman Laboratories, Inc-----	1256 N. McLean, Memphis 8, Tenn.
189	Burkart-Schier Chemical Co-----	1228 Chestnut St., Chattanooga 2, Tenn.
250	Burroughs-Wellcome & Co. (U.S.A.), Inc	Scarsdale Rd., Tuckahoe 7, N.Y.
664	Bzura, Inc-----	Clark St. and Broadway, Keyport, N.J.
87	Cabot, Samuel, Inc-----	141 Milk St., Boston 9 (Chelsea), Mass.
102	Cadet Chemical Corp-----	2153 Lockport-Olcott Rd., Burt, N.Y.
663	Calcasieu Chemical Corp-----	P.O. Box 6, New Orleans (Lake Charles), La.
271	Calhio Chemicals, Inc-----	380 Madison Ave., New York 17, N.Y. (Perry, Ohio).
593	California Ink Co., Inc-----	711 Camelia St., Berkeley 10, Calif.
103	California Spray Chemical Corp-----	Lucas and Ortho Way, Richmond 4, Calif.
584	Callery Chemical Co-----	9600 Perry Hwy., Pittsburgh 17, Pa. (Lawrence, Kans., and Callery, Pa.).
405	Capital Plastics, Inc-----	250 Mill St., Rochester 14, N.Y. (Brodhead, Wis.).
264	Carlisle Chemical Works, Inc-----	West St., Reading 15, Ohio.
128	Carpenter-Morton Co-----	376 3d St., Everett 49, Mass.
237	Carus Chemical Co., Inc-----	1375 8th St., LaSalle, Ill.
395	Carwin Co-----	Stiles Lane, North Haven, Conn.
585	Cary Chemicals, Inc-----	P.O. Box 1128, New Brunswick, N.J.
349	Catalin Corp. of America-----	Meadow Rd., Fords, N.J. (Calumet City, Ill., and Thomasville, N.C.).
615	Celanese Corp. of America-----	180 Madison Ave., New York 16, N.Y. (Amcelle, Md.; Celriver, S.C.; Bishop and Pampa, Tex.; Celco, Va.; and Point Pleasant, W. Va.).
	Marco Products Div-----	290 Ferry St., Newark 5, N.J. (Belvidere and Linden, N.J.; and Pasadena, Tex.).
396	Central Paint & Varnish Works, Inc----	59 Prospect St., Brooklyn 1, N.Y.
677	Chase Chemical Corp-----	3527 Smallman St., Pittsburgh 1, Pa.
406	Chemagro Corp-----	Hawthorn Rd., Kansas City 20, Mo.
347	Chemfax, Inc-----	P.O. Box 763, Gulfport, Miss.
88	Chemical Insecticide Corp-----	30 Whitman Ave., Metuchen, N.J.

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TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1958--Continued

No.	Name of company	Office address (location of plant given in parentheses if not in same city as office)
380	Chemical Manufacturing Co., Inc-----	Megonko Rd., Ashland, Mass.
381	Chemical Process Co-----	1901 Spring St., Redwood City, Calif.
272	Chemical Products Corp-----	P.O. Box 815, Cartersville, Ga.
173	Chemico, Inc-----	2508 E. Bailey Rd., Cuyahoga Falls, Ohio.
190	Chemlek Laboratories, Inc-----	4040 W. 123d St., Worth, Ill.
543	Chemo-Puro Manufacturing Corp-----	150 Doremus Ave., Newark 5, N.J.
238	Chemstrand Corp-----	350 5th Ave., New York 1, N.Y. (Gonzales, Fla.).
495	Childs Pulp Colors, Inc-----	43 Summit St., Brooklyn 31, N.Y.
345	Ciba Pharmaceutical Products, Inc-----	556 Morris Ave., Summit, N.J.
397	Ciba Products Corp-----	Kimberton, Pa.
259	City Chemical Corp-----	132 W. 22d St., New York 11, N.Y. (Jersey City, N.J.).
252	Cleary, W. A., Corp-----	"Clearacres," Rt. 27, Franklin Township, N.J.
496	Clinton Corn Processing Co., Div. of Standard Brands, Inc.	Clinton, Iowa.
89	Clover Chemical Co-----	P.O. Box 10865, Pittsburgh 36, Pa.
475	Coast Paint & Lacquer Co-----	6901 Cavalcade, Houston, Tex.
526	Coastwise Petroleum Co-----	1127 Munsey Bldg., Baltimore 2, Md. (Goodhope, La.).
289	Cockerille, Inc-----	Greenwood, Va.
423	Colgate-Palmolive Co-----	300 Park Ave., New York 22, N.Y. (Berkeley, Calif.; Clarksville, Ind.; Kansas City, Kans.; and Jersey City, N.J.).
545	Collett-Week Corp-----	Quimby St., Ossining, N.Y.
470	Collway Colors, Inc-----	15 Market St., Paterson 1, N.J.
539	Colonial Sugars Co-----	347 Madison Ave., New York 17, N.Y. (Gramercy, La.).
433	Colton Chemical Co., Div. of Air Reduction Co., Inc.	1747 Chester Ave., Cleveland 14, Ohio (Elkton, Md.).
588	Columbia Organic Chemicals, Inc-----	1012 Drake St., Columbia 5 (Cedar Terrace), S.C.
533	Commercial Solvents Corp-----	260 Madison Ave., New York 16, N.Y. (Agnew, Calif.; Peoria, Ill.; Terre Haute, Ind.; Harvey and Sterlington, La.; and Newark, N.J.).
424	Commonwealth Color & Chemical Co-----	3240 Grace Ave., New York 69, N.Y.
8	Concord Chemical Co., Inc-----	205 S. 2d St., Camden 1, N.J.
516	Concord Dyeing & Finishing Co., Inc-----	3470 3d Ave., New York 56, N.Y.
260	Consolidated Paint Co-----	3101 E. 11th St., Los Angeles 23, Calif.
180	Continental-Diamond Fibre Corp-----	70 S. Chapel St., Newark, Del. (Bridgeport, Pa.).
497	Continental Oil Co-----	1000 S. Pine St., Ponca City, Okla.
265	Cook Paint & Varnish Co-----	P.O. Box 389, Kansas City 41, Mo.
9	Coopers Creek Chemical Corp-----	River Rd., W. Conshohocken, Pa.
129	Copolymer Rubber & Chemical Corp-----	P.O. Box 2591, Baton Rouge 1, La.
425	Corn Products Co-----	17 Battery Pl., New York 4, N.Y. (Argo, Ill.).
151	Cosden Petroleum Corp-----	P.O. Box 1311, Big Spring, Tex.
382	Cowles Chemical Co-----	7016 Euclid Ave., Cleveland 3, Ohio (Skaneateles Falls, N.Y.).
99	Crosby Chemicals, Inc-----	Box 111, Picayune, Miss. (De Ridder, La.).
319	Crown Central Petroleum Corp-----	American Bldg., Baltimore 3, Md. (Houston, Tex.).
514	Crown Chemical Co., Div. of Joseph Turner & Co.	Pleasantview Terrace, Ridgefield, N.J.
174	Crown Chemical Corp-----	240 India St., Providence 3, R.I.
44	Crownoil Chemical Co., Inc-----	2-14 49th Ave., Long Island City 1, N.Y.
152	Crown Tar & Chemical Works, Inc-----	900 Wewatta St., Denver 4, Colo.
55	Crown Zellerbach Corp., Chemical Products Div.	Camas, Wash. (Lebanon, Oreg.).
559	Cutter Laboratories-----	4th and Parker Sts., Berkeley 10, Calif.
418	Dan River Mills, Inc-----	Danville, Va.
74	Davis, H. B., Co-----	Bush and Severn Sts., Baltimore 30, Md.
383	Dawe's Laboratories, Inc-----	4800 S. Richmond St., Chicago 32, Ill. (Newaygo, Mich.).
483	Deacy Products Co-----	120 Potter St., Cambridge 42, Mass.
138	Deere & Co., Grand River Chemical Div-----	Pryor, Okla.
56	Delaware Chemicals, Inc-----	50 Murray St., Staten Island 9, N.Y.
90	Delhi-Taylor Oil Corp-----	Box 4067, Corpus Christi, Tex.
398	Delmar Chemical Co., Inc-----	P.O. Box 108, Elkton, Md.
438	Delta Chemical Works, Inc-----	23 W. 60th St., New York 23, N.Y.
476	DePaul Chemical Co., Inc-----	44-27 Purvis St., Long Island City 1, N.Y.
290	DeSoto Paint & Varnish Co-----	P.O. Box 186, Garland, Tex.
273	Detrex Chemical Industries, Inc-----	Box 501, Detroit 32, Mich. (Ashtabula, Ohio).
390	Dexter Chemical Corp-----	845 Edgewater Rd., New York 59, N.Y.
285	Diamond Alkali Co-----	300 Union Commerce Bldg., Cleveland 14, Ohio (Newark, N.J.; Fairport Harbor, Ohio; Houston and Pasadena, Tex.; and Belle, W. Va.).
239	Dickinson Briquetting Co-----	Dickinson, N. Dak.
298	Diversey Corp-----	1820 N. Roscoe St., Chicago 13, Ill.
469	Dodd, Donald A-----	Rt. 5, Box 621, Everett, Wash.
391	Dominion Products, Inc-----	10-40 44th Dr., Long Island City 1, N.Y.
419	Douglas Chemical Corp-----	1624 Darrow Ave., Evanston, Ill.
240	Dow Chemical Co-----	Midland, Mich. (Pittsburg and Torrance, Calif.; Gales Ferry, Conn.; and Freeport, Tex.).

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TABLE 23.--Synthetic organic chemicals: Directory of manufacturers, 1958--Continued

No.	Name of company	Office address (location of plant given in parentheses if not in same city as office)
181	Dow Corning Corp-----	Box 592, Midland, Mich.
636	Drew, E. F., & Co., Inc-----	15 E. 26th St., New York 10, N.Y. (Boonton, N.J.).
198	Drug Processors, Inc-----	1219 E. Church St., Adrian, Mich.
607	Dunne, Frank W., Co-----	1007 41st St., Oakland 8, Calif.
512	duPont de Nemours, E. I., & Co., Inc--	10th and Market Sts., Wilmington 98, Del. (Birmingham, Ala.; Antioch and S. San Francisco, Calif.; Louviers, Colo.; Fairfield, Conn.; Edge Moor, Newport, and Seaford, Del.; Tucker, Ga.; Chicago and Seneca, Ill.; E. Chicago and Fortville, Ind.; Clinton and Ft. Madison, Iowa; Louisville and Wurtland, Ky.; Baltimore, Md.; Everett and Leominster, Mass.; Ecorse, Flint, Montague, and Wyandotte, Mich.; Carl Junction, Mo.; Arlington, Carney's Point, Deepwater Point, Gibbstown, Kearny, Linden, Newark, Parlin, Perth Amboy, and Pompton Lakes, N.J.; Buffalo, Dresden, Newburgh, Niagara Falls, and Rochester, N.Y.; Kingston, N.C.; Circleville, Cleveland, Columbia Park, and Toledo, Ohio; Moosic, Philadelphia, and Towanda, Pa.; Camden, S.C.; Chattanooga, Columbia, Memphis, and Old Hickory, Tenn.; Beaumont, LaPorte, Orange, and Victoria, Tex.; Martinsville, Richmond, and Waynesboro, Va.; DuPont, Wash.; Belle, Charleston, Martinsburg, and Parkersburg, W. Va.; and Barksdale, Wis.).
274	Dye Specialties Corp., Inc-----	26 Journal Sq., Jersey City 6, N.J.
334	Dykem Co-----	2307 N. 11th St., St. Louis 6, Mo.
534	Eakins, J. S. & W. R., Inc-----	55 Berry St., Brooklyn 11, N.Y.
594	Eastern States Petroleum & Chemical Corp.	P.O. Box 5008, Harrisburg St., Houston 12, Tex.
595	Eastman Kodak Co-----	343 State St., Rochester 4, N.Y.
577	Tennessee Eastman Co. Div-----	Eastman Rd., Kingsport, Tenn.
576	Texas Eastman Co. Div-----	P.O. Box 2068, Longview, Tex.
217	Edean Laboratories-----	10 Pine St., S. Norwalk, Conn.
455	Eddystone Manufacturing Co-----	P.O. Box 471, Wilmington 99, Del. (Eddystone, Pa.).
153	Edison, Thomas A., Industries, McGraw-Edison Co.	120 S. LaSalle St., Chicago 3, Ill.
617	Emery Industries, Inc-----	4300 Carew Tower, Cincinnati 2, Ohio.
75	Emkay Chemical Co-----	319 2d St., Elizabeth 1, N.J.
456	Endo Laboratories, Inc-----	84-40 101st St., Richmond Hill 18, N.Y.
628	Erdmann Chemical Co., Inc-----	70 Lister Ave., Newark 5, N.J.
104	Escambia Chemical Corp-----	P.O. Box 467, Pensacola, Fla.
407	Esso Standard Oil Co-----	P.O. Box 23, Linden, N.J.
477	Louisiana Div-----	P.O. Box 551, Baton Rouge 1, La.
420	Ethyl Corp-----	100 Park Ave., New York 17, N.Y. (Pittsburg, Calif.; Baton Rouge, La.; Orangeburg, S.C.; and Pasadena, Tex.).
275	Ethyl-Dow Chemical Co-----	Midland, Mich. (Freeport, Tex.).
457	Evans Chematics, Inc-----	250 E. 43d St., New York 17 (Waterloo), N.Y.
213	Fairmount Chemical Co., Inc-----	600 Ferry St., Newark 5, N.J.
10	Farboil Co-----	801 Key Hwy., Baltimore 30, Md.
57	Farley & Loetscher Manufacturing Co----	7th and White Sts., Dubuque, Iowa.
458	Farmers' Chemical Co-----	P.O. Box 591, Kalamazoo, Mich.
12	Farnow, Inc-----	4-83 48th Ave., Long Island City 1, N.Y.
11	Farrington, W. U., Estate of-----	Box 389, E. Greenwich (Warwick), R.I.
337	Federal Color Laboratories, Inc-----	4633 Forest Ave., Norwood, Cincinnati 12, Ohio.
323	Felton Chemical Co., Inc-----	599 Johnson Ave., Brooklyn 37, N.Y.
661	Ferro Chemical Corp-----	450 Krick Rd., Box 349, Bedford, Ohio.
498	Fiber Chemical Corp-----	P.O. Box 218, Matawan (Cliffwood), N.J.
499	Fibreboard Paper Products Corp-----	P.O. Box 4331, Oakland 23 (Emeryville), Calif.
608	Fine Organics, Inc-----	205 Main St., Lodi, N.J.
353	Firestone Tire & Rubber Co.: Firestone Plastics Co. Div-----	P.O. Box 690, Pottstown, Pa.
154	Synthetic Rubber & Latex Div-----	381 W. Wilbeth Rd., Akron 1, Ohio.
310	Florasynth Laboratories, Inc-----	900 Van Nest Ave., New York 62, N.Y.
91	Florida Chemical Co., Inc-----	Lake Alfred, Fla.
670	Food Machinery & Chemical Corp: Becco Chemical Div-----	Station B, Buffalo 7 (Tonawanda), N.Y.
324	Chemicals & Plastics Div-----	Nitro, W. Va.
257	Fine Chemicals Dept-----	1700-1901 Patapsco Ave., Baltimore 26, Md.
283	Westvaco Chlor-Alkali Div., and Westvaco Mineral Products Div.	161 E. 42d St., New York 17, N.Y. (Newark, Calif., and S. Charleston, W. Va.).
105	Foremost Food & Chemical Co., El Dorado Div.	P.O. Box 599, Oakland 4, Calif.
350	Foster-Heaton Co-----	16 E. 5th St., Paterson 4, N.J.
261	France, Campbell & Darling, Inc-----	Michigan Ave., Kanilworth, N.J.
570	Freeman Chemical Corp-----	211 E. Main St., Port Washington, Wis. (Ambridge, Pa., and Saukville, Wis.).

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TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1958--Continued

No.	Name of company	Office address (location of plant given in parentheses if not in same city as office)	No.
320	Fries Bros., Inc-----	Rt. 17, P.O. Box 8, Carlstadt, N.J.	268
253	Frisch & Co., Inc-----	88 E. 11th St., Paterson 4, N.J.	315
399	Fritzsche Bros., Inc-----	76 9th Ave., New York 11, N.Y. (Clifton, N.J.).	210
561	Frontier Chemical Co., Div. of Vulcan Materials Co.	P.O. Box 545, Wichita, Kans.	
92	Fuller, H. B., Co. of Ohio-----	4819 Industrial Court St., Cincinnati 17, Ohio.	461
384	Fuller, W. P., & Co-----	450 E. Grand Ave., S. San Francisco, Calif.	457
671	Gallowhur Chemical Corp-----	N. Water St., Ossining, N.Y.	478
586	Gamma Chemical Corp-----	355 Lexington Ave., New York 17, N.Y. (Great Meadows, N.J.).	175
335	Gane's Chemical Works, Inc-----	535 5th Ave., New York 17, N.Y. (Carlstadt, N.J.).	262
616	Geigy Chemical Corp-----	P.O. Box 430, Yonkers, N.Y. (McIntosh, Ala., and Cranston, R.I.)	426
525	General Aniline & Film Corp., Dyestuff & Chemical Div.	P.O. Box 12, Linden, N.J. (Calvert City, Ky.; Linden, N.J.; and Rensselaer, N.Y.).	211
31	General Color Co., Inc-----	24 Ave. B, Newark 5, N.J.	485
254	General Electric Co.: Chemical Materials Dept-----	1 Plastics Ave., Pittsfield, Mass. (Anaheim, Calif.; Pittsfield, Mass.; and Coshocton, Ohio).	139
	Insulating Materials Dept-----	23 River Rd., Schenectady 5, N.Y. (Chelsea, Mass.).	427
	Silicone Products Dept-----	Waterford, N.Y.	642
93	General Foods Corp., Maxwell House Div	1125 Hudson St., Hoboken, N.J.	676
330	General Mills, Inc-----	9200 Wayzata Blvd., Minneapolis 26, Minn. (Kankakee, Ill., and Keokuk, Iowa).	60
241	General Petroleum Corp-----	612 S. Flower St., Los Angeles 54, Calif.	367
408	General Tire & Rubber Co., Chemical Div.	1708 Englewood Ave., Akron, Ohio (Ashtabula and Mogadore, Ohio, and Odessa, Tex.).	421
18	George, P. D., Co-----	5200 N. 2d St., St. Louis 7, Mo.	525
325	Gillock Chemical Co-----	P.O. Box 1168, Texas City, Tex.	355
137	Gilman Paint & Varnish Co-----	W. 8th and Pine Sts., Chattanooga 1, Tenn.	622
366	Givaudan Corp-----	109-201 Delawanna Ave., Delawanna, N.J.	62
649	Glidden Co-----	900 Union Commerce Bldg., Cleveland 14, Ohio (San Francisco, Calif.; Jacksonville, Fla.; Chicago, Ill.; New Orleans, La.; Minneapolis, Minn.; Cleveland, Ohio; and Reading, Pa.).	37
579	Glyco Chemicals Div. of Chas. L. Hulsing & Co., Inc.	P.O. Box 330, Williamsport, Pa.	330
589	Goodrich, B. F., Co., B. F. Goodrich Chemical Co. Div.	3135 Euclid Ave., Cleveland 15, Ohio (Henry, Ill.; Calvert City and Louisville, Ky.; Haledon and Kearny, N.J.; Niagara Falls, N.Y.; and Akron and Avon Lake Village, Ohio).	94
549	Goodrich-Gulf Chemicals, Inc-----	3121 Euclid Ave., Cleveland 15, Ohio (Port Neches, Tex., and Institute, W. Va.).	219
567	Goodyear Tire & Rubber Co-----	1144 E. Market St., Akron 16, Ohio.	37
	Goodyear Synthetic Rubber Corp-----	P.O. Box 5397, Houston, Tex.	618
	Pathfinder Chemical Corp-----	5408 Baker Ave., Niagara Falls, N.Y.	558
3	Gordon Chemical Co., Inc-----	88 Webster St., Worcester 3, Mass.	320
76	Gordon Chemicals, Inc-----	Broad and 13th Sts., Carlstadt, N.J. (Wilmington, Del.).	107
642	Gordon-Lacey Chemical Products Co., Inc.	57-02 48th St., Maspeth 78, N.Y.	496
	Grace, W. R., & Co.:		108
218	Dewey & Almy Chemical Co. Div-----	62 Whittemore Ave., Cambridge 40 (Acton), Mass.	158
155	Grace Chemical Co. Div-----	P.O. Box 4906, Memphis 7, Tenn.	360
429	Polymer Chemicals Div-----	225 Allwood Rd., Clifton, N.J. (Baton Rouge, La.).	234
156	Grain Processing Corp-----	1600 Oregon St., Muscatine, Iowa.	817
459	Grand Rapids Varnish Corp-----	1350 Steele Ave., SW., Grand Rapids 2, Mich.	326
191	Grant, Foster, Co., Inc-----	209 N. Main St., Leominster, Mass. (Baton Rouge, La.).	162
605	Great American Plastics Co-----	650 Water St., Fitchburg, Mass.	375
460	Great Southern Chemical Corp-----	P.O. Box 4166, Corpus Christi, Tex.	175
58	Great Western Sugar Co-----	P.O. Box 5308, Terminal Annex, Denver 17 (Johnstown), Colo.	
139	Greenwood Textile Supply Co-----	27 Meadow St., Warwick, R.I.	72
338	Gulf Oil Corp-----	P.O. Box 1166, Pittsburgh 30, Pa. (Cleveland, Ohio; Philadelphia, Pa.; and Port Arthur, Tex.).	159
59	Guyan Color & Chemical Works-----	P.O. Box 1088, Huntington, W. Va.	291
409	H. M. Chemical Co., Ltd-----	1754 22d St., Santa Monica, Calif.	122
106	Halby Products Co., Inc-----	P.O. Box 366, Wilmington 99, Del.	340
517	Hall, C. P., Co. of Illinois-----	5245 W. 73d St., Chicago 38, Ill.	78
611	Hampden Color & Chemical Co-----	5 Albany St., Springfield 1, Mass.	574
47	Hanna Paint Manufacturing Co., Industrial Div.	1313 Windsor Ave., Columbus 16, Ohio.	619
19	Harbor Plywood Corp-----	Box 940, Aberdeen, Wash.	657
20	Harris Standard Paint Co., Inc-----	1026 N. 19th St., Tampa, Fla.	292
299	Harshaw Chemical Co-----	1945 E. 97th St., Cleveland 6, Ohio (Gloucester City, N.J., and Hastings, N.Y.).	22
410	Harsyd Chemicals, Inc-----	397 W. 21st St., Holland, Mich.	192
548	Hart Products Corp-----	1440 Broadway, New York 18, N.Y. (Jersey City, N.J.).	562

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TABLE 23.--Synthetic organic chemicals: Directory of manufacturers, 1958--Continued

No.	Name of company	Office address (location of plant given in parentheses if not in same city as office)
268	Hartman-Leddon Co-----	60th and Woodland Ave., Philadelphia 43 (Conshohocken), Pa.
515	Helene Curtis Industries, Inc-----	4401 W. North Ave., Chicago 39, Ill.
210	Hercules Powder Co-----	900 Market St., Wilmington 99, Del. (Brunswick, Ga.; Mansfield, Mass.; Hattiesburg, Miss.; Burlington, Kenvil, and Parlin, N.J.; and Hopewell, Va.)
461	Heresite & Chemical Co-----	822 S. 14th St., Manitowoc, Wis.
157	Heterochemical Corp-----	111 E. Hawthorne Ave., Valley Stream, N.Y.
478	Hexagon Laboratories, Inc-----	3536 Peartree Ave., New York 69, N.Y.
471	Heyden Newport Chemical Corp-----	342 Madison Ave., New York 17, N.Y. (Fords and Garfield, N.J.).
262	Newport Industries Co. Div-----	P.O. Box 911, Pensacola, Fla.
426	Nuodex Products Co. Div-----	830 Magnolia Ave., Elizabeth, N.J. (Long Beach, Calif., and Newark, N.J.).
211	Hodag Chemical Corp-----	7247 N. Central Park Ave., Chicago 45, Ill.
331	Hoechst Chemical Corp-----	129 Quidnick St., W. Warwick (Coventry), R.I.
486	Hoffmann-LaRoche, Inc-----	324-424 Kingsland Rd., Nutley 10, N.J.
518	Hoffman-Taff, Inc-----	P.O. Box 1246, Springfield, Mo.
339	Holland Color & Chemical Co-----	492 Douglas Ave., Holland, Mich.
427	Hooker Chemical Corp-----	Buffalo Ave. and 47th St., Niagara Falls, N.Y.
242	Durez Plastics Div-----	Walck Rd., N. Tonawanda, N.Y.
676	Phosphorus Div-----	Buffalo Ave. and 47th St., Niagara Falls, N.Y. (Adams, Mass.).
645	Houghton, E. F., & Co-----	303 W. Lehigh Ave., Philadelphia 33, Pa.
60	Huggins, James, & Son, Inc-----	239 Medford St., Malden 48, Mass.
367	Humble Oil & Refining Co-----	P.O. Box 2180, Houston 1 (Baytown), Tex.
421	Humphrey-Wilkinson, Inc-----	DeVine St., North Haven, Conn.
13	Hynson, Westcott & Dunning, Inc-----	Charles and Chase Sts., Baltimore 1, Md.
554	Imperial Color Chemical & Paper Corp-----	P.O. Box 231, Glens Falls, N.Y.
359	Industrial Dyestuff Co-----	Massasoit Ave. and Dexter Rd., P.O. Box 4249, E. Providence 14, R.I.
632	Industrial Products, Inc-----	215 S. Laurens St., Greenville, S.C.
643	Inland Steel Container Co-----	6532 S. Menard Ave., Chicago 38, Ill.
77	Insular Chemical Corp-----	New South Rd., Hicksville, L.I., N.Y.
354	Interchemical Corp.: Color & Chemicals Div-----	150 Wagaraw Rd., Hawthorne, N.J.
530	Finishes Div-----	224 McWhorter St., Newark 1, N.J. (Los Angeles, Calif.; Chicago, Ill.; Elizabeth and Newark, N.J.; and Cincinnati, Ohio).
94	International Minerals & Chemical Corp-----	5401 Old Orchard Rd., Skokie, Ill. (San Jose, Calif., and Niagara Falls, N.Y.).
219	International Paper Co-----	220 E. 42d St., New York 17, N.Y. (Corinth, N.Y., and York Haven, Pa.).
21	Ironsides Resins, Inc-----	270 W. Mound St. (P.O. Box 1999), Columbus 16, Ohio.
37	Jamestown Paint & Varnish Co-----	Jamestown, Pa.
618	Jefferson Chemical Co., Inc-----	P.O. Box 303, Houston 1 (Port Neches), Tex.
556	Jennison-Wright Corp-----	Box M, Station E, Toledo 9, Ohio.
120	Jergens, Andrew, Co-----	2535 Spring Grove Ave., Cincinnati 14, Ohio.
107	Jewel Paint & Varnish Co-----	345 N. Western Ave., Chicago 12, Ill.
596	Johnson, S. C., & Son, Inc-----	1525 Howe St., Racine, Wis.
108	Jones-Blair Paint Co., Inc-----	6969 Denton Dr., Dallas 35, Tex.
158	Jones-Dabney Co-----	1481 S. 11th St., Louisville 8, Ky.
360	Jordan, Jr., W. H. & F., Manufactur- ing Co.	2126 E. Somerset St., Philadelphia 34, Pa.
234	Kali Manufacturing Co-----	427 E. Moyer St., Philadelphia 25, Pa.
61	Kalide Corp-----	19 S. Canal St., Lawrence, Mass.
326	Kay-Fries Chemicals, Inc-----	180 Madison Ave., New York 16 (West Haverstraw), N.Y.
62	Kehe-Bradley Co-----	40 Oliver St., Boston 10 (Everett), Mass.
375	Kelly, John F., Co-----	956 Bransten Rd., San Carlos, Calif.
175	Kendall Refining Co-----	77 N. Kendall Ave., Bradford, Pa.
72	Kennecott Copper Corp.: Chino Mines Div-----	Hurley, N. Mex.
159	Utah Copper Div-----	309 Kearns Bldg., Salt Lake City 10 (Arthur and Magna), Utah.
434	Kentucky Color & Chemical Co., Inc-----	600 N. 34th St., Louisville 12, Ky.
291	Kessler Chemical Co., Inc-----	State Rd. and Cottman Ave., Philadelphia 35, Pa.
122	Keyser Chemical Co-----	26000 Bouquet Canyon Rd., Saugus, Calif.
340	Keystone Chemurgic Corp-----	R.D. #2, Bethlehem, Pa.
78	Keystone Color Works, Inc-----	151 W. Gay Ave., York, Pa.
574	Keystone Paint & Varnish Corp-----	71 Otsego St., Brooklyn 31, N.Y.
619	Kilsdonk Chemical Corp-----	101 Canal St., Lock Haven, Pa.
657	King, O. L., & Co-----	640 King St., Berkeley 10, Calif.
292	Knapp Products, Inc-----	180 Hamilton Ave., Lodi, N.J.
22	Knoedler Chemical Co-----	651 High St., Lancaster 1, Pa.
192	Kohnstamm, H., & Co., Inc-----	161 Avenue of the Americas, New York 13 (Brooklyn), N.Y.
562	Kolker Chemical Corp-----	600 Doremus Ave., Newark 5, N.J.
487	Koppers Co., Inc.: Chemicals & Dyestuffs Div-----	Koppers Bldg., 430 7th Ave., Pittsburgh 19, Pa.

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TABLE 23.--Synthetic organic chemicals: Directory of manufacturers, 1958--Continued

No.	Name of company	Office address (location of plant given in parentheses if not in same city as office)
506	Koppers Co., Inc.--Continued Plastics Div-----	Koppers Bldg., 430 7th Ave., Pittsburgh 19, Pa. (Port Reading, N.J. and Port Arthur, Tex.).
540	Tar Products Div-----	Koppers Bldg., 430 7th Ave., Pittsburgh 19, Pa. (Fontana, Calif.; Chicago, Ill.; Chalmette, La.; Bangor, Maine; Everett, Mass.; Kearny, N.J.; Buffalo, N.Y.; Hamilton, Ohio; E. Providence, R.I.; Memphis, Tenn.; Houston, Tex.; Arroya and Follansbee, W. Va.; Carrollville, Wis.).
609	Krumbhaar Chemicals, Inc-----	24-30 Jacobus Ave., S. Kearny, N.J.
462	Krystall Chemical Co-----	2108 N. Southport Ave., Chicago 14, Ill.
109	Kyanize Paints, Inc-----	2d and Boston Sts., Everett 49, Mass.
519	Lakeside Laboratories, Inc-----	1707 E. North Ave., Milwaukee 1, Wis.
4	Lake States Yeast & Chemical Div. of Rhineland Paper Co.	603 W. Davenport St., Rhineland, Wis.
182	LaMotte Chemical Products Co-----	Chestertown, Md.
235	Laros, R. K., Co-----	Broad and Wood Sts., Bethlehem, Pa.
575	LaSalle Chemical Co-----	21-23 Merseles St., Jersey City 2, N.J.
286	Laurel Soap Manufacturing Co., Inc----	Tioga and Thompson Sts., Philadelphia 34, Pa.
63	Leatex Chemical Co-----	2722 N. Hancock St., Philadelphia 33, Pa.
183	Lebanon Chemical Corp-----	P.O. Box 532, Lebanon, Pa.
110	Leffingwell Chemical Co-----	P.O. Box 1016, Perry Annex, Whittier, Calif.
439	Lemke, B. L., & Co., Inc-----	199 Main St., Lodi, N.J.
199	Leonard Refineries, Inc-----	E. Superior, Alma, Mich.
293	Lever Brothers Co-----	390 Park Ave., New York 22, N.Y.
14	Lever, G., Co., Inc-----	Howard and Huntington Sts., Philadelphia 33, Pa.
311	Levey, Fred'k. H., Co., Inc-----	380 Madison Ave., New York 17 (Brooklyn), N.Y.
541	Lewis Tar Products Co-----	P.O. Box A, Lyons (McCook), Ill.
441	Lilly, Eli, & Co-----	740 S. Alabama St., Indianapolis 6, Ind.
243	Long, Charles R., Jr., Co-----	1630 W. Hill St., Louisville 10, Ky.
647	Loven Chemical Co. of California-----	23874 Pine St., Newhall, Calif.
660	Lubrizol Corp-----	Cleveland 17, Ohio.
111	Lueders, George, & Co-----	427 Washington St., New York 13 (Patchogue), N.Y.
193	Lyle Branchflower Co-----	15th Ave., NW., at Shilshole, Seattle 7, Wash.
622	Maas & Waldstein Co-----	2121 McCarter Hwy., Newark 4, N.J.
64	Magnolia Petroleum Co-----	P.O. Box 900, Dallas 21 (Beaumont), Tex.
442	Magruder Color Co., Inc-----	2385 Richmond Ter., Staten Island 2, N.Y.
627	Mallinckrodt Chemical Works-----	3600 N. 2d St., St. Louis 7, Mo. (Jersey City, N.J.).
266	Maney, Paul, Laboratories, Inc-----	402 1st St., SE., Cedar Rapids, Iowa.
200	Marathon Div. of American Can Co., Chemical Sales Dept.	Rothschild, Wis.
463	Marblette Corp-----	37-31 30th St., Long Island City 1, N.Y.
428	Marden-Wild Corp-----	500 Columbia St., Somerville 43, Mass.
32	Marlowe-Van Loan Corp-----	Box 1851, High Point, N.C.
116	Marx, Max, Color & Chemical Co-----	188-194 Coit St., Irvington 11, N.J.
392	Maumee Chemical Co-----	2 Oak St., Toledo 5, Ohio.
651	May, Otto B., Inc-----	52 Amsterdam St., Newark 5, N.J.
376	Maywood Chemical Works-----	100 W. Hunter Ave., Maywood, N.J.
527	McCloskey Varnish Co-----	7600 State Rd., Philadelphia 49, Pa.
672	McGean Chemical Co-----	1040 Midland Bldg., Cleveland 15, Ohio.
38	McWhorter Chemicals, Inc-----	1645 S. Kilbourn Ave., Chicago 23, Ill.
276	Medical Chemicals Corp-----	4122 W. Grand Ave., Chicago 51, Ill.
629	Merck & Co., Inc-----	Lincoln Ave., Rahway, N.J. (Albany, Ga.; Rahway, N.J.; Danville, Philadelphia, and West Point, Pa.; and Elkton, Va.).
300	Merichem Co., Div. of Jefferson Lake Sulphur Co.	P.O. Box 9788, Houston 15 (Green's Bayou), Tex.
33	Merkin, M. J., Paint Co., Inc-----	1441 Broadway, New York 18, N.Y. (Lyndhurst, N.J.).
70	Merrell, Wm. S., Co-----	Galbraith Rd. and Pennsylvania RR., Cincinnati 15, Ohio.
606	Meta Chemical Corp-----	214-1/2 Washington Ave., Carlstadt, N.J.
411	Metalsalts Corp-----	200 Wagaraw Rd., Hawthorne, N.J.
220	Metro-Atlantic, Inc-----	2072 Smith St., Centerdale 11, R.I.
100	Meyer, J., & Sons, Inc-----	4321 N. 4th St., Philadelphia 40, Pa.
464	Michigan Chemical Corp-----	500 N. Bankson St., St. Louis, Mich. (El Dorado, Ark.).
500	Midland Industrial Finishes Co-----	E. Water St., Waukegan, Ill.
465	Miles Laboratories, Inc-----	Elkhart, Ind.
23	Mineral Oil Refining Co-----	P.O. Box 625, Dickinson 1, Tex.
312	Minnesota Mining & Manufacturing Co----	900 Bush Ave., St. Paul 6, Minn.
24	Minnesota Paints, Inc-----	1101 S. 3d St., Minneapolis 15, Minn. (Ft. Wayne, Ind.).
112	Miranol Chemical Co., Inc-----	277 Coit St., Irvington 11, N.J.
624	Mobay Chemical Co-----	1815 Washington Rd., Pittsburgh 34, Pa. (New Martinsville, W. Va.)
176	Mona Industries, Inc-----	65 E. 23d St., Paterson 17, N.J.
117	Monsanto Chemical Co-----	800 N. Lindbergh Blvd., St. Louis 66, Mo. (Anniston, Ala.; Long Beach and Santa Clara, Calif.; Monsanto, Ill.; Luling, La.; Everett and Springfield, Mass.; Trenton, Mich.; Kearny, N.J.; Texas City, Tex.; Seattle, Wash.; and Nitro, W. Va.).

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TABLE 23.--Synthetic organic chemicals: Directory of manufacturers, 1958--Continued

No.	Name of company	Office address (location of plant given in parentheses if not in same city as office)
644	Montrose Chemical Co-----	100 Lister Ave., Newark 5, N.J.
542	Montrose Chemical Corp. of California-----	824 Wilshire Blvd., Los Angeles 17 (Torrance), Calif.
313	Moore, Benjamin, & Co-----	511 Canal St., New York 13, N.Y. (Los Angeles, Calif.; Denver, Colo.; Carteret, N.J.; and Cleveland, Ohio).
160	Moretex Chemical Products, Inc-----	314 W. Henry St., Spartanburg, S.C.
546	Morningstar Paisley, Inc-----	1770 Canalport Ave., Chicago 16, Ill.
400	Morton Chemical Co-----	110 N. Wacker Dr., Chicago 6 (Ringwood), Ill.
277	Morwear Paint Co-----	568 14th St., Oakland 12, Calif.
125	Motomco, Inc-----	89 Terminal Ave., Clark, N.J.
25	National Biochemical Co-----	3127 W. Lake St., Chicago 12, Ill.
65	National Casein Co-----	601 W. 80th St., Chicago 20, Ill.
351	National Lead Co-----	111 Broadway, New York 6, N.Y. (San Francisco, Calif.; Perth Amboy, N.J.; Niagara Falls, N.Y.; and Philadelphia, Pa.).
443	National Petro-Chemicals Corp-----	99 Park Ave., New York 16, N.Y. (Tuscola, Ill.).
563	National Polychemicals, Inc-----	Eames St., Wilmington, Mass.
590	National Southern Products Corp-----	P.O. Box 390, Tuscaloosa, Ala.
674	National Starch Products, Inc-----	270 Madison Ave., New York 16, N.Y. (Meredosia, Ill., and Plainfield, N.J.).
209	Nease Chemical Co., Inc-----	Lock Haven (State College), Pa.
177	Nelson-Wells & Co-----	Box 348, Red Bluff, Calif.
361	Nepera Chemical Co., Div. of Warner-Lambert Pharmaceutical Co., Inc.	21 Gray Oaks Ave., Yonkers 2 (Harriman), N.Y.
362	Neville Chemical Co-----	Neville Island, Pittsburgh 25, Pa. (Anaheim, Calif.).
355	New York Color & Chemical Co., Div. of American Dyewood Co.	Main and Joralemon Sts., Belleville 9, N.J.
201	New York & Pennsylvania Co., Inc-----	425 Park Ave., New York 22, N.Y. (Johnsonburg, Pa.).
48	Nilok Chemicals, Inc-----	2000 College Ave., Niagara Falls (Lockport), N.Y.
49	Nonweiler, A. P., Co-----	Box 1007, Oshkosh, Wis.
510	Nopco Chemical Co., Inc-----	60 Park Pl., Newark 2, N.J. (Richmond, Calif.; Cedartown, Ga.; and Harrison and N. Arlington, N.J.).
610	Norda Essential Oil & Chemical Co., Inc.	601 W. 26th St., New York 1, N.Y. (Boonton, N.J.).
341	Northwest Natural Gas Co-----	Public Service Bldg., Portland 4, Oreg.
39	Northwestern Chemical Co-----	P.O. Box 156, 120 North Aurora St., West Chicago, Ill.
648	Norwich Pharmacal Co-----	17 Eaton Ave., Norwich, N.Y.
597	O'Brien Corp-----	2001 W. Washington Ave., South Bend, Ind. (Baltimore, Md.).
130	Odessa Butadiene Co-----	P.O. Box 1161, El Paso (Odessa), Tex.
466	Odessa Styrene Co-----	P.O. Box 1161, El Paso (Odessa), Tex.
184	Ohio Chemical & Surgical Equipment Co-----	1400 E. Washington Ave., Madison 10, Wis. (Cleveland, Ohio).
550	Oil & Chemical Products, Inc-----	295 Madison Ave., New York 17, N.Y. (Houston, Tex.).
356	Old Colony Tar Co., Inc-----	500 5th Ave., New York 36, N.Y. (Cambridge and Worcester, Mass.).
131	Old Hickory Chemical Co., Inc-----	P.O. Box 1480, Richmond 12, Va. (Old Hickory, Tenn.).
346	Olin Mathieson Chemical Corp-----	10 Light St., Baltimore 3, Md. (Huntsville and McIntosh, Ala.; Brandenburg, Ky.; Lake Charles, La.; Niagara Falls and Rochester, N.Y.; and Morgantown, W. Va.).
121	Blockson Chemical Co. Div-----	Joliet, Ill.
278	Squibb, E. R., & Sons Div-----	745 5th Ave., New York 22, N.Y. (New Brunswick, N.J., and Brooklyn, N.Y.).
640	Onyx Oil & Chemical Co-----	Warren and Morris Sts., Jersey City 2, N.J.
377	Orbis Products Corp-----	601 W. 25th St., New York 1, N.Y. (Newark, N.J.).
2	Organic Chemical Corp-----	74-84 Valley St., E. Providence 14, R.I.
66	Organics, Inc-----	1724 Greenleaf Ave., Chicago 26, Ill.
422	Oronite Chemical Co-----	200 Bush St., San Francisco 4, Calif. (Oak Point, La.).
132	Ortho Chemical Corp-----	52-20 37th St., Long Island City 1, N.Y.
133	Osborn, C. J., Co-----	1301 W. Blancke St., Linden, N.J.
50	Ottawa Chemical Co-----	823 Hamilton St., Toledo 7, Ohio.
134	Ottol Oil Co-----	455 Cortlandt St., Belleville 9, N.J.
368	Pabst Brewing Co-----	917 W. Juneau, Milwaukee 18, Wis. (Peoria, Ill.).
332	Pan American Petroleum Corp-----	Box 591, Tulsa, Okla. (Alvin, Carthage, Katy, Levelland, Pettus, Sundown, and Sweeny, Tex.).
675	Pantasote Co., Elenora Chemical Div---	415 Madison Ave., New York, N.Y.
484	Parke, Davis & Co-----	Foot of Joseph Campau, Detroit 32, Mich.
140	Parsons-Plymouth, M. W., Inc-----	59 Beekman St., New York 38 (Brooklyn), N.Y.
304	Patent Chemicals, Inc-----	335 McLean Blvd., Paterson 4, N.J.
231	Paul-Lewis Laboratories, Inc-----	4253 N. Port Washington Rd., Milwaukee 12, Wis.
444	Peck's Products Co-----	610 E. Clarence Ave., St. Louis 15, Mo.
255	Peerless Chemical Co., Inc-----	3850 Oakman Blvd., Detroit 4, Mich.
51	Peerless Color Co., Inc-----	521-535 North Ave., Plainfield, N.J.
385	Penick, S. B., & Co-----	100 Church St., New York 8, N.Y. (Jersey City, Lyndhurst, Montville, and Newark, N.J.).
631	Pennsalt Chemicals Corp-----	3 Penn Center Plaza, Philadelphia 2, Pa. (Calvert City, Ky., and Wyandotte, Mich.).
	Sharples Chemicals Div-----	3 Penn Center Plaza, Philadelphia 2, Pa. (Wyandotte, Mich.).

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TABLE 23.--Synthetic organic chemicals: Directory of manufacturers, 1958--Continued

No.	Name of Company	Office address (location of plant given in parentheses if not in same city as office)
161	Pennsylvania Industrial Chemical Corp.	120 State St., Box 240, Clairton (Chester), Pa.
162	Pennsylvania Refining Co.	Butler (Karns City), Pa.
202	Perkins Glue Co.	632 Cannon Ave., Lansdale, Pa. (W. Memphis, Ark.; High Point, N.C. and Shawano, Wis.).
566	Permutit Co., Div. of Pfaunder Permutit, Inc.	50 W. 44th St., New York 36, N.Y. (Birmingham, N.J.).
67	Perry & Derrick Co., Inc.	2510 Highland Ave., Cincinnati 12, Ohio (Dayton, Ky.).
314	Petroleum Chemicals, Inc.	821 Gravier St., New Orleans 12 (Lake Charles), La.
504	Petrolite Corp., Tretolite Co. Div.	369 Marshall Ave., Webster Groves 19, Mo.
163	Petro-Tex Chemical Corp.	P.O. Box 2584, Houston 1, Tex.
287	Pfanzstiel Laboratories, Inc.	104 Lakeview Ave., Waukegan, Ill.
336	Pfister Chemical Works, Inc.	Foot of Linden Ave., Ridgefield, N.J.
646	Pfizer, Charles, & Co., Inc.	630 Flushing Ave., Brooklyn 6, N.Y. (Groton, Conn., and Vigo, Ind.)
26	Phelan-Faust Paint Manufacturing Co.	932 Loughborough Ave., St. Louis 11, Mo.
386	Phillips Chemical Co.	Adams Bldg., Bartlesville, Okla. (Borger and Pasadena, Tex.).
511	Phillips Petroleum Co.	Bartlesville, Okla. (Phillips, Tex.).
141	Phoenix Oil Co.	9505 Cassius Ave., Cleveland 5, Ohio.
435	Pilot California Co.	215 W. 7th St., Los Angeles 14 (Santa Fe Springs), Calif.
52	Pitt-Consol Chemical Co.	191 Doremus Ave., Newark 5, N.J.
369	Pittsburgh Coke & Chemical Co.	2100 Grant Bldg., Pittsburgh 19, Pa.
520	Pittsburgh Plate Glass Co.	1 Gateway Center, Pittsburgh 22, Pa. (Torrance, Calif.; Atlanta, Ga.; Detroit, Mich.; Newark, N.J.; Barberton and Cleveland, Ohio; Springdale, Pa.; Houston, Tex.; New Martinsville, W. Va.; and Milwaukee, Wis.).
513	Planetary Chemical Co., Inc.	3500 DeKalb St., St. Louis 18, Mo.
436	Plastics Engineering Co.	1607 Geele Ave., Sheboygan, Wis.
625	Polychemical Laboratories, Inc.	494 Hunts Point Ave., New York 59, N.Y.
598	Poly Resins, Inc.	11661 Wicks St., Sun Valley, Calif.
40	Polyrez Co., Inc.	S. Columbia St. and Railroad, Woodbury, N.J.
142	Poughkeepsie Dyestuff Corp.	77 N. Water St., Poughkeepsie, N.Y.
164	Pratt & Lambert, Inc.	75 Tonawanda St., Buffalo 7, N.Y.
599	Premium Chemicals, Inc.	113 Marine St., Farmingdale, Long Island, N.Y.
203	Presto Plastic Products Co., Inc.	5410 Avenue U, Brooklyn 34, N.Y.
662	Process Chemicals Co.	8733 S. Dice Rd., Santa Fe Springs, Calif.
393	Procter & Gamble Manufacturing Co.	301 E. 6th St., Cincinnati 2, Ohio (Long Beach and Sacramento, Calif.; Chicago, Ill.; Iowa City, Iowa; Kansas City, Kans.; Baltimore, Md.; Quincy, Mass.; St. Louis, Mo.; Staten Island, N.Y.; and Dallas, Tex.).
228	Proctor Chemical Co., Inc.	P.O. Box 399, Lumber St., Salisbury, N.C.
172	Productol Co.	417 S. Hill St., Los Angeles 13 (Santa Fe Springs), Calif.
387	Publicker Industries, Inc.	1429 Walnut St., Philadelphia 2, Pa.
245	Puget Sound Pulp & Timber Co.	300 Laurel St., Bellingham, Wash.
501	Pure Oil Co.	35 E. Wacker Dr., Chicago 1, Ill. (Toledo, Ohio; Nederland, Tex.; Cabin Creek and Dawes, W. Va.; and Worland, Wyo.).
204	Purex Corp., Ltd.	9300 Rayo Ave., South Gate, Calif. (St. Louis, Mo.).
481	Quaker Chemical Products Corp.	Lime, Elm, and Sandy Sts., Conshohocken, Pa.
363	Quaker Oats Co.	Merchandise Mart Plaza, Chicago 54, Ill. (Cedar Rapids, Iowa; Omaha, Nebr.; and Memphis, Tenn.).
222	R. S. A. Corp.	690 Saw Mill River Rd., Ardsley, N.Y.
223	Raybestos Div. of Raybestos-Manhattan, Inc.	75 E. Main St., Stratford, Conn.
118	Rayette, Inc., Chemical Div.	261 E. 5th St., St. Paul 1, Minn.
41	Red Spot Paint & Varnish Co., Inc.	110-112 Main St., Evansville 8, Ind.
224	Refined Products Corp.	624 Schuyler Ave., Lyndhurst, N.J.
654	Reichhold Chemicals, Inc.	525 N. Broadway, White Plains, N.Y. (Tuscaloosa, Ala.; Azusa, Calif.; Jacksonville, Fla.; Argo, Ill.; Kansas City, Kans.; Ballard Vale, Mass.; Ferndale, Mich.; Elizabeth, N.J.; Brooklyn, N.Y.; Charlotte, N.C.; Hampton, S.C.; and Seattle and Tacoma, Wash.).
557	Reilly Tar & Chemical Corp.	1615 Merchants Bank Bldg., Indianapolis 4, Ind. (Chicago and Granite City, Ill.; Indianapolis, Ind.; Newark, N.J.; Cleveland and Dover, Ohio; Chattanooga, Tenn.; Lone Star, Tex.; and Fairmont, W. Va.).
5	Reliance Varnish Co., Inc.	4730 Crittenden Dr., Louisville 8, Ky.
113	Remington Arms Co., Inc.	939 Barnum Ave., Bridgeport 2, Conn.
558	Republic Creosoting Co.	1615 Merchants Bank Bldg., Indianapolis 4, Ind. (Florence and Mobile, Ala.; Indianapolis, Ind.; St. Louis Park, Minn.; Lima, Ohio; Ironton, Utah; Norfolk, Va.; and Seattle, Wash.).
600	Rezolin, Inc.	1651 18th St., Santa Monica, Calif.
27	Richardson Co.	27th Ave. and Lake St., Melrose Park, Ill.
205	Richfield Oil Corp.	555 S. Flower St., Los Angeles 17 (Watson), Calif.
206	Riker Laboratories, Inc.	19901 Nordhoff St., Northridge, Calif.

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TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1958--Continued

No.	Name of company	Office address (location of plant given in parentheses if not in same city as office)
N.C.;	301 Rinshed-Mason Co-----	5935 Milford Ave., Detroit, Mich. (Anaheim, Calif.).
	73 Ritter, F., & Co-----	4001 Goodwin Ave., Los Angeles 39, Calif.
	601 Ritter Chemical Co., Inc-----	403 W. Main St., Amsterdam, N.Y.
	482 Riverdale Chemical Co-----	220 E. 17th St., Chicago Heights, Ill.
	1 Robert & Co., Inc-----	60 Broad St., New York 4, N.Y. (Newark, N.J.).
	659 Roberts Chemicals, Inc-----	Box 446, Nitro, W. Va.
	6 Robot Devices, Inc-----	Main St., Buchanan, Va.
	79 Rock Hill Printing & Finishing Co-----	Rock Hill, S.C.
	602 Rohm & Haas Co-----	222 W. Washington Sq., Philadelphia 5, Pa. (Bristol and Philadelphia, Pa.; Knoxville, Tenn.; and Deer Park, Tex.).
Ind.).	315 Roma Chemical Corp-----	900 Passaic Ave., E. Newark, N.J.
	316 Royce Chemical Co-----	Carlton Ave., Carlton Hill, N.J.
	185 Rubber Corp. of America-----	New South Rd., Hicksville, N.Y.
	357 Ruberoid Co-----	500 5th Ave., New York 36, N.Y. (Joliet, Ill.; Baltimore, Md.; and Erie, Pa.).
	401 S & W Chemical Co., Inc-----	P.O. Box 995, La Porte, Tex.
	178 Dr. Salisbury's Laboratories-----	500 Gilbert St., Charles City, Iowa.
	114 Salvo Chemical Corp-----	Rothschild, Wis.
a, Ohio;	251 Sandoz, Inc-----	Fair Lawn Ave. and 3d. St., Fair Lawn, N.J.
d	80 Fine Colors Div-----	21-29 McBride Ave., Paterson 1, N.J.
	358 Schaefer Varnish Co., Inc-----	5th and Magnolia Sts., Louisville 10, Ky.
	667 Schenectady Varnish Co., Inc-----	Congress and 10th Ave., Schenectady 1 (Rotterdam Jct.), N.Y.
	537 Scherer, R. P., Corp-----	9425 Grinnell Ave., Detroit 13, Mich.
	342 Schering Corp-----	60 Orange St., Bloomfield (Union), N.Y.
	28 Scholler Bros., Inc-----	Collins and Westmoreland Sts., Philadelphia 34, Pa.
	402 Schuylkill Chemical Co-----	2346 Sedgley Ave., Philadelphia 32, Pa.
	236 Schwarz Laboratories, Inc-----	230 Washington St., Mt. Vernon, N.Y.
	412 Seamco Chemical Co-----	3 Hanover St., Holyoke, Mass.
	531 Searle, G. D., & Co-----	P.O. Box 5110, Chicago 80 (Skokie), Ill.
	29 Seidlitz Paint & Varnish Co-----	18th and Garfield, Kansas City, Mo.
	430 Shawinigan Resins Corp-----	644 Monsanto Ave., Springfield 1, Mass. (Trenton, Mich.).
	364 Sheffield Chemical Co., Div. of National Dairy Products Corp.	P.O. Box 630, Norwich, N.Y.
	502 Shell Chemical Corp-----	50 W. 50th St., New York 20, N.Y. (Dominguez, Martinez, Pittsburg, and Ventura, Calif.; Denver, Colo.; Norco, La.; and Houston, Tex.).
	343 Shell Oil Co-----	50 W. 50th St., New York 20, N.Y. (Martinez and Wilmington, Calif.; Roxana, Ill.; Norco, La.; Deer Park, Tex.; and Anacortes, Wash.).
	229 Shepherd Chemical Co-----	2803 Highland Ave., Cincinnati 12, Ohio.
x.;	521 Sherwin-Williams Co-----	101 Prospect Ave., NW., Cleveland 1, Ohio (Chicago, Ill.; Detroit, Mich.; Dayton and Cleveland, Ohio; and Philadelphia and Pittsburgh, Pa.).
	641 Shulton, Inc-----	Route 46, Clifton (Newark), N.J.
	207 Siddall, Geo. F., Co., Inc-----	P.O. Box 925, Spartanburg, S.C.
	68 Simpson Redwood Co-----	2301 N. Columbia Blvd., Portland 17, Oreg.
	485 Sinclair Refining Co-----	600 5th Ave., New York 20, N.Y. (E. Chicago, Ind.; Sand Springs, Okla.; Marcus Hook, Pa.; and Houston, Tex.).
	42 Sipe, James B., & Co-----	P.O. Box 8010, S. Hills Branch, Pittsburgh 16 (Bridgeville), Pa.
	344 Smith, Kline & French Laboratories-----	1530 Spring Garden St., Philadelphia 1, Pa.
	333 Socony Paint Products Co-----	Metuchen, N.J.
	445 Sohio Petroleum Co-----	837-B Midland Bldg., Cleveland 15 (Lima), Ohio.
	81 Solar Chemical Corp-----	29 Fuller St., Leominster, Mass.
	143 Soluol Chemical Co., Inc-----	Green Hill and Market Sts., Natick, R.I.
	295 Solvent Chemical Co., Inc-----	341 Commercial St., Malden 48, Mass.
lyn,	123 Sonneborn, L., Sons, Inc-----	300 4th Ave., New York 10, N.Y.
,	668 Sonoco Products Co-----	Hartsville, S.C.
	446 Southern Resin Glue Co-----	Box 352, Fayetteville (Vander), N.C.
	302 Southern Sizing Co-----	601 SE. Main St., East Point, Ga.
and	279 Southern Textile Chemical Corp-----	1407 Broadway, New York 18, N.Y. (Langley, S.C.).
	165 Spaulding Fibre Co., Inc-----	310 Wheeler St., Tonawanda, N.Y.
	612 Specialty Resins Co-----	2801 Lynwood Rd., Lynwood, Calif.
	269 Specific Pharmaceuticals, Inc-----	331 4th Ave., New York 10, N.Y. (Bayonne, N.J.).
a,	124 Spencer Chemical Co-----	610 Dwight Bldg., Kansas City 5, Mo. (Calumet City, Ill.; Pittsburg, Kans.; Henderson, Ky.; Vicksburg, Miss.; and Fort Worth and Orange, Tex.).
		See Olin Mathieson Chemical Corp.
	564 Squibb, E. R., & Sons Div. of Olin Mathieson Chemical Corp.	
	53 Staley, A. E., Manufacturing Co-----	2200 E. Eldorado St., Decatur, Ill.
	230 Standard Agricultural Chemicals, Inc-----	1301 Jefferson St., Hoboken, N.J.
	246 Standard Chemical Products, Inc-----	1301 Jefferson St., Hoboken, N.J. (Charlotte, N.C.).
	34 Standard Chlorine Chemical Co., Inc-----	115 Jacobus Ave., S. Kearny, N.J.
		5th St. and 5th Ave., Paterson 4, N.J.

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TABLE 23.--Synthetic organic chemicals; Directory of manufacturers, 1958--Continued

No.	Name of company	Office address (location of plant given in parentheses if not in same city as office)	No.
256	Standard Naphthalene Products Co., Inc	115 Jacobus Ave., S. Kearny, N.J.	907
613	Standard Oil Co. of California, Western Operations, Inc.	225 Bush St., San Francisco 20 (Bakersfield, El Segundo, and Richmond), Calif.	489
479	Standard Oil Co. of Indiana-----	910 S. Michigan Ave., Chicago 80, Ill. (Wood River, Ill.; Whiting, Ind.; Neodesha, Kans.; and Sugar Creek, Mo.).	308
119	Standard-Toch-Chemicals, Inc-----	2600 Richmond Ter., Staten Island 3, N.Y.	415
247	Standard Ultramarine & Color Co-----	5th Ave. and 24th St., Huntington 18, W. Va.	232
378	Stange, Wm. J., Co-----	342 N. Western Ave., Chicago 12, Ill.	309
101	Stansbury Chemical Co., Inc-----	1929 Aurora Ave., Seattle 9, Wash.	448
280	Stauffer Chemical Co-----	380 Madison Ave., New York 17, N.Y. (LeMoyné, Ala.; Richmond and Torrance, Calif.; Louisville, Ky.; Henderson, Nev.; Brooklyn, Chauncey, and Niagara Falls, N.Y.; Perry, Ohio; Chester, Pa.; Lowland, Tenn.; and Bentonville and Roanoke, Va.).	431
587	Anderson Chemical Co. Div-----	3940 Summit Ave., Weston, Mich.	169
305	Stein, Hall & Co., Inc-----	285 Madison Ave., New York 17, N.Y. (Charlotte, N.C.).	244
652	Stepan Chemical Co-----	427 W. Randolph St., Chicago 6, Ill.	30
	Sterling Drug, Inc.:		432
413	Hilton-Davis Chemical Co. Div-----	2235 Langdon Farm Rd., Cincinnati 13, Ohio.	208
665	National Brands Div-----	1450 Broadway, New York 18, N.Y. (Trenton, N.J.).	493
225	Winthrop Laboratories Div-----	1450 Broadway, New York 18 (Rensselaer), N.Y.	656
503	Stresen-Reuter, Fred'k. A., Inc-----	400 Roosevelt Ave., Bensenville, Ill.	480
186	Summit Chemical Products Corp-----	11 William St., Belleville 9, N.J.	637
578	Sumner Chemical Co., Div. of Miles Laboratories, Inc.	Elkhart, Ind. (Zeeland, Mich.).	472
	Sun Chemical Corp.:		195
580	Pigment Div-----	309 Sussex St., Harrison, N.J.	54
373	Warwick Chemical Co. Div-----	10-40 44th Ave., Long Island City, N.Y. (Wood River Junction, R.I., and Rock Hill, S.C.).	307
490	Sun Oil Co-----	1608 Walnut St., Philadelphia 3, Pa. (Marcus Hook, Pa., and Toledo, Ohio).	547
166	Suntide Refining Co-----	P.O. Box 658, Corpus Christi (Viola), Tex.	321
551	Surfact-Co., Inc-----	14010 S. Seeley Ave., Blue Island, Ill.	650
522	Swift & Co-----	4115 Packers Ave., Chicago 9, Ill.	666
488	Synco Resins, Inc-----	Henry St., Bethel, Conn.	449
306	Synthetic Chemicals, Inc-----	335 McLean Blvd., Paterson 4, N.J.	620
167	Synthetic Products Co-----	1636 Wayside Rd., Cleveland 12, Ohio.	170
669	Synthron, Inc-----	Ryan Ave., Ashton, R.I.	603
144	Synvar Corp-----	726 King St., Wilmington 99, Del.	538
552	Tanner, Charles S., Co-----	250 S. Water St., Providence 1, R.I.	16
388	Tar Distilling Co., Inc-----	500 5th Ave., New York 36, N.Y. (Cleveland, Ohio).	450
258	Taylor Fibre Co-----	Norristown, Pa.	389
296	Tennessee Corp-----	61 Broadway, New York 6, N.Y. (Copperhill, Tenn.).	318
577	Tennessee Eastman Co., Div. of Eastman Kodak Co.	See Eastman Kodak Co.	115
447	Tennessee Products & Chemical Corp----	2611 West End Ave., Nashville 3 (Chattanooga), Tenn.	491
328	Tex Chemical Co-----	20 Wagaraw Rd., Fair Lawn, N.J.	403
327	Texas Butadiene & Chemical Corp-----	440 Bank of the Southwest Bldg., Houston 2 (Channelview), Tex.	43
317	Texas Co-----	135 E. 42d St., New York 17, N.Y. (Port Arthur, Tex.).	135
576	Texas Eastman Co., Div. of Eastman Kodak Co.	See Eastman Kodak Co.	281
248	Texas-U.S. Chemical Co-----	P.O. Box 1597, Port Neches, Tex.	146
591	Thiokol Chemical Corp-----	P.O. Box 27, Bristol, Pa. (Trenton, N.J., and Moss Point, Miss.).	532
528	Thomasset Colors, Inc-----	120 Lister Ave., Newark 5, N.J.	658
297	Thompson Chemical Co-----	90 Mendon Ave., Pawtucket, R.I.	233
673	Thompson Chemicals Corp-----	3028 Locust St., St. Louis 3, Mo.	282
249	Thompson-Hayward Chemical Co-----	2915 Southwest Blvd., Kansas City 8, Mo.	604
655	Toms River-Cincinnati Chemical Corp----	P.O. Box 20, Evanston Sta., Cincinnati 7, Ohio (Toms River, N.J., and Norwood and St. Bernard, Ohio).	614
168	Tousey Varnish Co-----	520 W. 25th St., Chicago 16, Ill.	416
145	Trask, Arthur C., Co-----	327 S. LaSalle St., Chicago 4, Ill.	633
414	Treplow Products, Inc-----	59 Camden St., Paterson, N.J.	15
45	Triangle Chemical Co-----	206 Lower Elm St., Macon, Ga.	69
214	Trojan Powder Co-----	17 N. 7th St., Allentown (Seiple), Pa.	523
565	Trubek Laboratories-----	State Highway #17, Box F, E. Rutherford, N.J.	371
467	U B S Chemical Corp-----	491 Main St., Cambridge 42, Mass.	46
215	Uhlich, Paul, & Co., Inc-----	90 West St., New York 6 (Brooklyn), N.Y.	571
581	Ultra Chemical Works, Inc., Div. of Witco Chemical Co.	2 Wood St., Paterson 4, N.J.	524
	Union Carbide Corp.:		569
621	Union Carbide Chemicals Co. Div-----	30 E. 42d St., New York 17, N.Y. (Torrance, Calif.; Whiting, Ind.; Niagara Falls, N.Y.; Port Lavaca and Texas City, Tex.; and Institute and S. Charleston, W. Va.).	630
			639

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TABLE 23.--Synthetic organic chemicals: Directory of manufacturers, 1958--Continued

No.	Name of company	Office address (location of plant given in parentheses if not in same city as office)
907	Union Carbide Corp.--Continued Union Carbide Plastics Co. Div-----	30 E. 42d St., New York 17, N.Y. (Ottawa, Ill.; Wyandotte, Mich.; Bound Brook, N.J.; and Marietta, Ohio).
489	Silicones Div-----	30 E. 42d St., New York 17, N.Y. (Sistersville, W. Va.).
308	Union Oil Co. of California-----	P.O. Box 7600, Los Angeles 54, Calif. (Arroyo Grande, Rodeo, Santa Maria, and Wilmington, Calif.; Cut Bank, Mont.; and Edmonds, Wash.).
415	United Cork Co-----	Central Ave., Kearny (Jamesburg), N.J.
232	United Rubber & Chemical Co-----	P.O. Box 149, Baytown, Tex.
309	United States Borax Research Corp-----	630 Shatto Pl., Los Angeles 5 (Boron), Calif.
448	U. S. Industrial Chemicals Co., Div. of National Distillers & Chemical Corp.	99 Park Ave., New York 16, N.Y. (Anaheim, Calif.).
431	U. S. Oil Co-----	Box 1345, Providence (Phillipsdale), R.I.
169	United States Pipe & Foundry Co-----	3300 First Ave., N., Birmingham, Ala.
244	U. S. Plastic Products Corp-----	Lake and Whitman Aves., Metuchen, N.J.
30	United States Procaine Co., Inc-----	2911 Atlantic Ave., Brooklyn 7 (College Point), N.Y.
432	U. S. Rubber Co., Naugatuck Chemical Div.	1230 Avenue of the Americas, New York 20, N.Y. (Naugatuck, Conn.).
208	Universal Detergents, Inc-----	1825 E. Spring St., Long Beach 6, Calif.
493	Universal Oil Products Co., Universal Polychem Manufacturing Div.	30 Algonquin Rd., Des Plaines (McCook), Ill.
656	Universal Western Chemical Corp-----	12800 Imperial Hwy., Norwalk, Calif.
480	Upjohn Co-----	301 Henrietta St., Kalamazoo 99, Mich.
637	Valchem-----	1407 Broadway, New York 18, N.Y. (Langley, S.C.).
472	van Ameringen-Haebler, Div. of International Flavors and Fragrances, Inc	521 W. 57th St., New York 19, N.Y. (Union Beach, N.J.).
195	Vanderbilt Chemical Corp-----	230 Park Ave., New York 17, N.Y. (Bethel, Conn.).
54	Van Dyk & Co., Inc-----	11 William St., Belleville 9, N.J.
307	Varcum Chemical Corp-----	P.O. Box 476, Niagara Falls, N.Y.
547	Velsicol Chemical Corp-----	330 E. Grand Ave., Chicago 11, Ill. (Marshall, Ill., and Memphis, Tenn.).
321	Verley Chemical Co., Inc-----	200 Pulaski St., Newark 5, N.J.
650	Verona-Pharma Chemical Corp-----	Iorio Ct., Union, N.J.
666	Vickers Petroleum Co., Inc-----	Box 2240, Wichita (Potwin), Kans.
449	Victor Chemical Works-----	155 N. Wacker Dr., Chicago 6, Ill.
620	Vineland Chemical Co-----	West Wheat Rd., Vineland, N.J.
170	Virginia-Carolina Chemical Corp-----	401 E. Main St., Richmond 5, Va. (Charleston, S.C.).
603	Visco Products Co-----	1020 Holcombe Blvd., Houston (Sugar Land), Tex.
538	Vitamins, Inc-----	809 W. 58th St., Chicago 21, Ill.
16	Vita-Var Corp-----	10 Commerce Ct., Newark 2, N.J.
450	Wallace & Tiernan, Inc-----	25 Main St., Belleville 9, N.J.
389	Harchem Div-----	25 Main St., Belleville 9, N.J. (Dover, Ohio).
318	Lucidol Div-----	1740 Military Rd., Buffalo 5, N.Y.
115	Warner-Jenkinson Manufacturing Co-----	2526 Baldwin St., St. Louis 6, Mo.
491	Warren Paint & Color Co-----	700 Wedgewood Ave., Nashville 4, Tenn.
403	Washburn, T. F., Co-----	2244 Elston Ave., Chicago 14, Ill.
43	Watertown Manufacturing Co-----	127 Echo Lake Rd., Watertown, Conn.
135	Werner Drug & Chemical Co-----	759 Beechwood Ave., Cincinnati 32, Ohio.
281	Western Dry Color Co-----	600 W. 52d St., Chicago 9, Ill.
146	Westinghouse Electric Corp-----	P.O. Box 146, Pittsburgh 30 (East Pittsburgh), Pa.
532	Westville Laboratories-----	Wheeler Rd., Monroe, Conn.
658	West Virginia Pulp & Paper Co., Polychemicals Div.	Charleston A, S.C.
233	Wetherill, George D., Varnish Co-----	Haddon Ave. and White Horse Pike, Camden 3, N.J.
282	Wheeler, Reynolds & Stauffer-----	636 California St., San Francisco 8 (Richmond), Calif.
604	White & Bagley Co-----	100 Foster St., Worcester 8, Mass.
614	White & Hodges, Inc-----	576 Lawrence St., Lowell, Mass.
416	Whittemore-Wright Co., Inc-----	62 Alford St., Boston 29, Mass.
633	Wilca Co., Inc-----	P.O. Box 506, Charlotte 1, N.C.
15	Wilmot & Cassidy, Inc-----	108-112 Provost St., Brooklyn 22, N.Y.
69	Wilson Laboratories Div. of Wilson & Co., Inc.	4221 S. Western Ave., Chicago 9, Ill.
523	Wilson Organic Chemicals, Inc-----	P.O. Box 452, Sayreville, N.J.
371	Witco Chemical Co-----	122 E. 42d St., New York 17, N.Y. (Lynwood, Calif.; Chicago, Ill.; and Brooklyn, N.Y.).
46	Witte, John H., & Sons, Resin Div-----	Oak St. and Bluff Rd., Burlington, Iowa.
571	Wolf, Jacques, & Co-----	P.O. Box 839, Passaic (Carlstadt and Clifton), N.J.
524	Woonsocket Color & Chemical Co-----	179 Sunnyside Ave., Woonsocket, R.I.
569	Wyandotte Chemicals Corp-----	1609 Biddle Ave., Wyandotte, Mich. (Geismer, La.).
630	Wyeth Laboratories, Inc., Div. of American Home Products Corp.	P.O. Box 8299, Philadelphia 1 (West Chester), Pa.
639	Young Aniline Works, Inc-----	2731 Boston St., Baltimore 24, Md.

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TABLE 21B. --Synthetic organic chemicals: Pesticides and other organic agricultural chemicals for which U.S. production or sales were reported, identified by manufacturer, 1959--Continued

Chemical	Manufacturers' identification codes (according to list in table 23)
PESTICIDES AND OTHER ORGANIC AGRICULTURAL CHEMICALS, CYCLIC--Continued	
*Insecticides--Continued	
*Chlorinated insecticides--Continued	
6-Chloropiperonyl chrysanthemummono-carboxylate-----	BPC.
4,4'-Dichlorobenzilic acid-----	GGY.
1,1-Dichloro-2,2-bis(p-chlorophenyl)ethane (DDD)-----	ACG, RH.
1,1-Dichloro-2,2-bis(p-ethylphenyl)ethane-----	RH.
O-(2,4-Dichlorophenyl) O,O-diethyl phosphorothioate-----	VC.
4,4'-Dichloro-a-(trichloromethyl)benzhydrol-----	RH.
Dieldrin (Hexachloro-epoxy-octahydro-endo, exo-di- methanonaphthalene).	SHC.
Endrin (Hexachloro-epoxy-octahydro-endo, endo-di- methanonaphthalene).	SHC, VEL.
Heptachlor (Heptachloro-tetrahydromethanodene)-----	VEL.
*Hexachlorocyclohexane (Benzene hexachloride)-----	ACG, DA, FRO, HK, PPO, SF.
*Lindane-----	HK.
Toxaphene (Chlorinated camphene)-----	HPC.
*1,1,1-Trichloro-2,2-bis(p-chlorophenyl)ethane (DDT)-----	ACG, DA, GGY, LEB, MCH, MTO, OMC.
1,1,1-Trichloro-2,2-bis(p-methoxyphenyl)ethane (Meth- oxychlor).	DUP.
2-Cyclohexyl-4,6-dinitrophenol-----	DOW.
O,O-Diethyl O-(3-chloro-4-methylumbelliferone) phos- phorothioate.	CHG.
O,O-Diethyl O-(2-isopropyl-4-methyl-6-pyrimidinyl) phosphorothioate.	GGY.
N,N-Diethyltoluamide-----	CWL.
*O,O-Dimethyl O-(p-nitrophenyl) phosphorothioate (Methyl parathion).	MON, SHC, VEL, VIC.
O,O-Dimethyl S-(4-oxo-1,2,3-benzotriazin-3(4H)-ylmethyl) phosphorodithioate.	CHG.
O-Ethyl O-(p-nitrophenyl)benzene phosphorothioate (EPN)---	VIC.
*Parathion (O,O-Diethyl O-(p-nitrophenyl)phosphorothioate)	ACY, AMP, MON, VEL.
*Thianite (Isobornyl thiocyanatoacetate)-----	BKC, HPC.
*Rodenticides:	
2-Isovaleryl-1,3-indandione, calcium salt-----	MOT.
2-Pivaloyl-1,3-indandione-----	MOT.
Warfarin (3-(Acetonylbenzyl)-4-hydroxycoumarin)-----	ABB, PEN.
PESTICIDES AND OTHER ORGANIC AGRICULTURAL CHEMICALS, ACYCLIC	
*Fungicides:	
Bis-1,4-bromoacetoxybutene-2-----	VIN.
Cadmium succinate-----	MAL.
Dimethyldithiocarbamic acid, ferric salt (Ferbam)-----	BRK, DUP, RBC.
*Dimethyldithiocarbamic acid, zinc salt (Ziram)-----	ALC, BRK, DUP, GYR, PAS, RBC, USR.
Disodium cyanodithioimidocarbonate-----	BRK.
Ethylene bis(dithiocarbamic acid), diammonium salt-----	RBC.
*Ethylene bis(dithiocarbamic acid), disodium salt (Nabam)---	CIS, DUP, x.
Ethylene bis(dithiocarbamic acid), manganese salt (Mansate).	DUP, RH.
Ethylene bis(dithiocarbamic acid), zinc salt (Zineb)-----	CIS, DUP, x.
3-Ethyl-(mercurithio)-1,2-propanediol-----	DUP.
Ethylmercury acetate-----	DUP, MTL.
Ethylmercury chloride-----	DUP, MTL.
Ethylmercury phosphate-----	DUP.
Hydroxyethylmercury acetate-----	BRK.
2-Methoxyethylmercury acetate-----	BRK.
Methylmercury cyanide-----	MTL.
Methylmercury nitrile-----	BRK, MTL.
Zinc undecenoate (Zinc hendecenoate)-----	WTM.
*Herbicides:	
2-Chloroallyl diethyldithiocarbamate-----	MON.
N,N-Diallyl-2-chloroacetamide-----	MON.
2,2-Dichloropropionic acid, sodium salt-----	DOW.
Diethyl dithiobis(thionoformate)-----	RBC.
Ethyl N,N-di-n-propylthiocarbamate-----	SF.
Hexachloroacetone-----	ACG.

Directory of Manufacturers

The Directory of Manufacturers lists the companies that report their production of synthetic organic chemicals to the U. S. Tariff Commission. The name of each manufacturer is preceded by an alphabetical identification symbol. These identification symbols consist of not more than three capital letters, and usually bear a relation to the company name. In most instances, the assigned symbols were approved by the companies they identify.

For 1959, the Directory of Manufacturers lists 653 primary manufacturers (see table 23). Some of the companies that report production of synthetic organic chemicals consume their entire output in further manufacturing.

The Directory of Manufacturers lists the reporting companies in two ways. Section 1 lists them in alphabetical order by identification symbols. Section 2 lists the reporting companies in alphabetical order by company name, and gives the corresponding identification symbol, the company address, and the plant locations.

TABLE 23. -- Synthetic organic chemicals: Directory of manufacturers, 1959

SECTION 1. ALPHABETICAL DIRECTORY BY CODE

[Names of synthetic organic chemical manufacturers that reported production or sales to the U.S. Tariff Commission for 1959 are listed below in the order of their identification codes as used in tables in pt. III. Section 2 of this table lists these manufacturers alphabetically and gives their office and plant addresses]

Code	Name of company	Code	Name of company
AAC	American Alcolac Corp.	ARC	Armour & Co., Armour Industrial Chemical Co. Div.
AAE	American Aniline & Extract Co., Inc.	ARF	Atlas Refinery, Inc.
ABB	Abbott Laboratories	ARG	Argus Chemical Corp.
ABR	Andrew Brown Co.	ARK	Armstrong Cork Co.
ACC	Amoco Chemicals Corp.	ARO	Arco Co.
ACF	Allied Chemical Corp., National Aniline Div.	ARP	Armour & Co., Armour Pharmaceutical Co. Div.
ACG	Allied Chemical Corp., General Chemical Div.	ASH	Ashland Oil & Refining Co.
ACN	Allied Chemical Corp., Nitrogen Div.	ASL	Ansul Chemical Co.
ACO	Allied Chemical Corp., Solvay Process Div.	AST	Astra Pharmaceutical Products, Inc.
ACP	Allied Chemical Corp., Plastics & Coal Chemicals Div.	ASY	American Synthetic Rubber Corp.
ACR	Acme Resin Corp.	ATL	Atlantic Chemical Corp.
ACS	Allied Chemical Corp., Semet-Solvay Petrochemical Div.	ATR	Atlantic Refining Co.
ACT	Arthur C. Trask Co.	AUG	Augusta Chemical Co.
ACY	American Cyanamid Co.	AV	American Viscose Corp.
ADC	Ad-Co Color Corp.	BAC	Baker Castor Oil Co.
ADM	Archer-Daniels-Midland Co.	BAL	Baltimore Paint & Chemical Corp.
AHC	Arnold, Hoffman & Co., Inc.	BAT	Bates Chemical Co.
AIR	Air Reduction Co., Inc., Air Reduction Chemical Co. Div.	BCN	Beech-Nut Life Savers, Inc.
AKL	Reichhold Chemicals, Inc., Alkydol Laboratories Div.	BEN	Bennett's
ALB	Ames Laboratories, Inc.	BFG	B. F. Goodrich Co., B. F. Goodrich Chemical Co. Div.
ALC	Alco Oil & Chemical Corp.	BIF	Bioferm Corp.
ALL	Alliance Color & Chemical Co.	BIS	Bios Laboratories, Inc.
ALT	Crompton & Knowles Corp., Althouse Chemical Co. Div.	BKC	J. T. Baker Chemical Co.
ALX	Alox Corp.	BKL	Berkeley Chemical Corp.
AMB	American Bio-Synthetics Corp.	BKM	Buckman Laboratories, Inc.
AMC	Amchem Products, Inc.	BKT	J. T. Baker Chemical Co., Taylor Chemical Div.
AMF	American Marietta Co., Ferbert-Schorndorfer Co. Div.	BL	Belle Chemical Co., Inc.
AMK	American Alkyd Industries	BLN	Brooklyn Color Works, Inc.
AML	Amalgamated Chemical Corp.	BOR	Borden Chemical Co.
AMO	American Oil Co. (Texas)	BOY	Walter N. Boysen Co.
AMP	American Potash & Chemical Corp.	BPC	Benzol Products Co.
AMR	American Marietta Co., Adhesive, Resin & Chemical Div.	BR	Brown Co.
AMS	American Marietta Co., Ridgway Color & Chemical Co. Div.	BRD	Bird & Son, Inc., Floor Covering Div.
AMZ	American Maize Products Co.	BRK	F. W. Berk & Co., Inc.
APC	Appleton Coated Paper Co.	BRS	Bristol-Meyers Co., Bristol Laboratories Div.
APD	Atlas Powder Co.	BRU	M. A. Bruder & Sons, Inc.
APR	Atlas Processing Co.	BRY	Bryant Chemical Corp.
APV	Armstrong Paint & Varnish Works, Inc.	BSC	Burkart-Schier Chemical Co.
APX	Apex Chemical Co., Inc.	BUK	Buckeye Cellulose Corp.
ARA	Arapahoe Chemicals, Inc.	BUR	Burroughs Wellcome & Co. (U.S.A.), Inc.
		BZ	Bzura, Inc.
		CAD	Cadet Chemical Corp.
		CAP	Capital Plastics, Inc.
		CAT	Catalin Corp. of America
		CAU	Calcasieu Chemical Corp.
		CBP	Ciba Pharmaceutical Products, Inc.
		CBT	Samuel Cabot, Inc.

TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1959 --Continued

Code	Name of company	Code	Name of company
CBY	Crosby Chemicals, Inc.	DLH	Delhi-Taylor Oil Corp.
CC	Collway Colors, Inc.	DLI	Dawe's Laboratories, Inc.
CCA	Carlisle Chemical Works, Inc., Advance Solvents & Chemical Div.	DLM	Delmar Chemical Co., Inc.
CCC	Chase Chemical Corp.	DLT	Delta Chemical Works, Inc.
CCO	Chemico, Inc.	DOD	Donald A. Dodd
CCP	Crown Central Petroleum Corp.	DOM	Dominion Products, Inc.
CCW	Carlisle Chemical Works, Inc.	DOW	Dow Chemical Co.
CD	Continental-Diamond Fibre Corp.	DRG	Drug Processors, Inc.
CDF	Concord Dyeing & Finishing Co., Inc.	DRW	E. F. Drew & Co., Inc.
CEL	Celanese Corp. of America: Celanese Chemical Co. Div. Celanese Plastics Co. Div.	DSC	Dye Specialties, Inc.
CEN	Central Paint & Varnish Works, Inc.	DSO	DeSoto Chemical Coatings, Inc.
CFX	Chemfax, Inc.	DUN	Frank W. Dunne Co.
CHG	Chemagro Corp.	DUP	E. I. duPont de Nemours & Co., Inc.
CHO	Stauffer Chemical Co., Galhio Chemicals, Inc. Div.	DYK	Dykem Co.
CIK	California Ink Co., Inc.	EAK	J. S. & W. R. Eakins, Inc.
CIS	Chemical Insecticide Corp.	EDY	Eddystone Manufacturing Co.
CIT	City Chemical Corp.	EFH	E. F. Houghton & Co.
CKL	Chemlek Laboratories, Inc.	EK	Eastman Kodak Co.
CLB	Columbia Organic Chemicals, Inc.	EKT	Eastman Kodak Co., Tennessee Eastman Co. Div.
CLC	Chas. L. Hisking & Co., Inc., Clintbrook Chemical Co. Div.	EKK	Eastman Kodak Co., Texas Eastman Co. Div.
CLN	Standard Brands, Inc., Clinton Corn Processing Co. Div.	EMK	Emkay Chemical Co.
CLV	Clover Chemical Co.	EMR	Emery Industries, Inc.
CLY	W. A. Cleary Corp.	EN	Endo Laboratories, Inc.
CM	Carpenter-Morton Co.	ERD	Erdmann Chemical Co., Inc.
CMC	Comcolloid, Inc.	ESC	Escambia Chemical Corp.
CMG	Chemical Manufacturing Co., Inc.	ESL	Humble Oil & Refining Co., Esso Standard Div. (Louisiana)
CO	Continental Oil Co.	ESQ	Humble Oil & Refining Co., Esso Standard Div. (New Jersey)
COK	Cockerville Chemicals, Inc.	EST	Eastern States Petroleum & Chemical Co.
COL	Air Reduction Co., Inc., Colton Chemical Co. Div.	ETD	Ethyl-Dow Chemical Co.
COM	Commercial Solvents Corp.	EVN	Evans Chemetics, Inc.
CON	Concord Chemical Co., Inc.	EW	Westinghouse Electric Corp.
COP	Coopers Creek Chemical Corp.	FAR	Farnow, Inc.
COS	Coastwise Petroleum Co.	FB	Fritzsche Bros., Inc.
CP	Colgate-Palmolive Co.	FBC	Fiber Chemical Corp.
CPC	Childs Pulp Colors, Inc.	FBR	Fibreboard Paper Products Corp.
CPD	Chemical Products Corp.	FBS	Fries Bros., Inc.
CPL	Coast Paint & Lacquer Co., Inc.	FCD	France, Campbell & Darling, Inc.
CPR	Chemical Process Co.	FCL	Federal Color Laboratories, Inc.
CPT	Consolidated Paint Co.	FEL	Felton Chemical Co., Inc.
CPV	Cook Paint & Varnish Co.	FER	Ferro Chemical Corp.
CPY	Copolymer Rubber & Chemical Corp.	FG	Foster Grant Co., Inc.
CRC	Crown Chemical Corp.	FH	Foster-Heaton Co.
CRN	Corn Products Co.	FIN	Fine Organics, Inc.
CRO	Crownoil Chemical Co., Inc.	FIR	Firestone Tire & Rubber Co., Firestone Plastics Co. Div.
CRS	Carus Chemical Co., Inc.	FL	Farley & Loetscher Manufacturing Co.
CRT	Crown Tar & Chemical Works, Inc.	FLA	Florida Chemical Co., Inc.
CRY	Cary Chemicals, Inc.	FLH	H. B. Fuller Co.
CRZ	Crown Zellerbach Corp., Chemical Products Div.	FLO	Florasynth Laboratories, Inc.
CS	Chemstrand Corp.	FLW	W. P. Fuller & Co.
CSD	Cosden Petroleum Corp.	FMB	Food Machinery & Chemical Corp., Becco Chemical Div.
CSP	California Spray-Chemical Corp.	FMF	Schuylkill Chemical Co.
CST	Charles S. Tanner Co.	FMP	Food Machinery & Chemical Corp., Chemicals & Plastics Div.
CUT	Cutter Laboratories	FMT	Fairmount Chemical Co., Inc.
CW	Collett-Week Corp.	FMW	Food Machinery & Chemical Corp., Chlor-Alkali and Mineral Products Div.
CWL	Cowles Chemical Co.	FCM	Formica Corp., Subsidiary of American Cyanamid Co.
CWN	Carwin Co.	FOR	Foremost Food & Chemical Co., El Dorado Div.
CWP	Consolidated Water Power & Paper Co.	FRE	Freeman Chemical Corp.
DA	Diamond Alkali Co.	FRM	Farmers' Chemical Co.
DAN	Dan River Mills, Inc.	FRO	Vulcan Materials Co., Frontier Chemical Co. Div.
DAV	H. B. Davis Co.	FRR	Estate of W. U. Farrington
DCC	Dow Corning Corp.	FRS	Firestone Tire & Rubber Co., Firestone Synthetic Rubber & Latex Co. Div.
DCI	Delaware Chemicals, Inc.	FSH	Frisch & Co., Inc.
DEC	Decey Products Co.	GAF	General Aniline & Film Corp., Dyestuff & Chemical Div.
DEP	DePaul Chemical Co., Inc.	GAM	Gamma Chemical Corp.
DEX	Dexter Chemical Corp.	GAN	Gane's Chemical Works, Inc.
DGS	Douglas Chemical Corp.		

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TABLE 23. -- Synthetic organic chemicals: Directory of manufacturers, 1959 --Continued

Code	Name of company	Code	Name of company
GCC	W. R. Grace & Co., Grace Chemical Div.	IMP	Imperial Color Chemical & Paper Corp.
GDC	Gulf Research & Development Co.	INL	Inland Steel Container Co.
GDL	Gordon-Lacey Chemical Products Co., Inc.	INP	International Paper Co.
GDN	Gordon Chemicals, Inc.	IRI	Ironsides Co.
GE	General Electric Co., Chemical Materials Dept.	ITX	Intex Chemical Corp.
GEI	General Electric Co., Insulating Materials Dept.	JAM	Jamestown Paint & Varnish Co.
GGC	Goodrich-Gulf Chemicals, Inc.	JCC	Jefferson Chemical Co., Inc.
GGY	Geigy Chemical Corp.	JEN	Jennison-Wright Corp.
GIL	Gilman Paint & Varnish Co.	JMS	J. Meyer & Sons, Inc.
GIV	Givaudan Corp.	JNS	S. C. Johnson & Son, Inc.
GLD	Glidden Co.	JOB	Jones-Blair Paint Co., Inc.
GLY	Chas. L. Huisking & Co., Inc., Glyco Chemicals Div.	JOD	Jones-Dabney Co.
GNC	General Color Co., Inc.	JOR	W. H. & F. Jordan, Jr. Manufacturing Co.
GNF	General Foods Corp., Maxwell House Div.	JRG	Andrew Jergens Co.
GNM	General Mills, Inc.	JTC	Joseph Turner & Co.
GNT	General Tire & Rubber Co., Chemical Div.	JWL	Jewel Paint & Varnish Co.
GOC	Gulf Oil Corp.	KAL	Kali Manufacturing Co.
GOR	Gordon Chemical Co., Inc.	KCC	Kennecott Copper Corp., Chino Mines Div.
GPR	Grain Processing Corp.	KCH	Keystone Chemurgic Corp.
GRA	Great American Plastics Co.	KCU	Kennecott Copper Corp., Utah Copper Div.
GRC	Deere & Co., Grand River Chemical Div.	KCW	Keystone Color Works, Inc.
GRD	W. R. Grace & Co., Dewey & Almy Chemical Div.	KEL	Kelly-Pickering Chemical Corp.
GRG	P. D. George Co.	KEN	Kendall Refining Co.
GRP	W. R. Grace & Co., Polymer Chemicals Div.	KES	Kessler Chemical Co., Inc.
GRS	Great Southern Chemical Corp.	KF	Kay-Fries Chemicals, Inc.
GRV	Grand Rapids Varnish Corp.	KLD	Kalide Corp.
GRW	Great Western Sugar Co.	KLK	Kolker Chemical Corp.
GTS	Greenwood Textile Supply Co.	KLS	Kilsdonk Chemical Corp.
GUA	Guard Chemical Co.	KND	Knoedler Chemical Co.
GUY	Guyan Color & Chemical Works, Inc.	KNG	O. L. King & Co.
GYR	Goodyear Tire & Rubber Co.	KNP	Knapp Products, Inc.
HAB	Halby Products Co., Inc.	KON	H. Kohnstamm & Co., Inc.
HAL	C. P. Hall Co. of Illinois	KPC	Koppers Co., Inc., Chemicals & Dyestuffs Div.
HAM	Hampden Color & Chemical Co.	KPP	Koppers Co., Inc., Plastics Div.
HAN	Hanna Paint Manufacturing Co., Inc.	KPT	Koppers Co., Inc., Tar Products Div.
HAR	Harshaw Chemical Co.	KPV	Keystone Paint & Varnish Corp.
HCC	Holland Color & Chemical Co.	KRM	Krumbhaar Chemicals, Inc.
HDC	Hodag Chemical Corp.	KRY	Krystall Chemical Co.
HER	Heresite & Chemical Corp.	KYN	Kyanize Paints, Inc.
HET	Heterochemical Corp.	KYS	Keysor Chemical Co.
HEX	Hexagon Laboratories, Inc.	LAM	Lamotte Chemical Products Co.
HFT	Hoffman-Taff, Inc.	LAS	LaSalle Chemical Corp.
HK	Hooker Chemical Corp.	LEA	Leatex Chemical Co.
HKD	Hooker Chemical Corp., Durez Plastics Div.	LEB	Lebanon Chemical Corp.
HKP	Hooker Chemical Corp., Phosphorus Div.	LEF	Leffingwell Chemical Co.
HLC	Hartman-Leddon Co., Inc.	LEM	B. L. Lemke & Co., Inc.
HLI	Haag Laboratories, Inc.	LEN	Leonard Refineries, Inc.
HLN	Helene Curtis Industries, Inc.	LEV	Lever Brothers Co.
HMC	H. M. Chemical Co., Ltd.	LEW	Lewis Tar Products Co.
HMP	Hampshire Chemical Corp.	LIL	Eli Lilly & Co.
HMY	Humphrey-Wilkinson, Inc.	LKL	Lakeside Laboratories, Inc.
HN	Heyden Newport Chemical Corp.	LKY	St. Regis Paper Co., Lake States Yeast & Chemical Div.
HNW	Heyden Newport Chemical Corp., Newport Industries Co. Div.	LON	Charles R. Long, Jr. Co.
HNX	Heyden Newport Chemical Corp., Mudex Products Co. Div.	LUB	Lubrizol Corp.
HOF	Hoffmann-LaRoche, Inc.	LUE	George Lueders & Co.
HPC	Hercules Powder Co.	LUR	Laurel Soap Manufacturing Co., Inc.
HRB	Harbor Plywood Corp.	LVR	C. Lever Co., Inc.
HRT	Hart Products Corp.	LVY	Fred'k H. Levey Co., Inc.
HST	Hoechst Chemical Corp.	MAL	Mallinckrodt Chemical Works
HSY	Harsyd Chemicals, Inc.	MAR	American Can Co., Marathon Corp. Div.
HUM	Humble Oil & Refining Co., Humble Div.	MAS	Maas & Waldstein Co.
HUS	Husky Oil Co.	MAY	Otto B. May, Inc.
HYN	Hynson, Westcott & Dunning, Inc.	MCB	Borg-Warner Corp., Marbon Chemical Div.
ICC	Interchemical Corp., Color & Chemicals Div.	MCC	McCloskey Varnish Co.
ICF	Interchemical Corp., Finishes Div.	MCH	Michigan Chemical Corp.
IDC	Industrial Dyestuff Co.	MCW	McWhorter Chemicals, Inc.
IFF	International Flavors & Fragrances, Inc.	MDP	Maryland Plastics Co.
IMC	International Minerals & Chemical Corp.	MED	Medical Chemicals Corp.
		MEE	Maumee Chemical Co.
		MER	Jefferson Lake Sulphur Co., Merichem Co. Div.
		MGR	Magruder Color Co., Inc.

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TABLE 23. -- *Synthetic organic chemicals: Directory of manufacturers, 1959* -- Continued

Code	Name of company	Code	Name of company	Code
MTD	Midland Industrial Finishes Co.	PC	Proctor Chemical Co., Inc.	SCC
MTR	Miranol Chemical Co., Inc.	PCC	Pittsburgh Coke & Chemical Co.	SCF
MJM	M. J. Merkin Paint Co., Inc.	PCB	Peerless Chemical Co.	SCH
ML	Miles Laboratories, Inc.	PCO	Peerless Color Co., Inc.	SCN
MLS	Miles Chemical Co.	PCS	Process Chemicals Co.	SCO
MMM	Minnesota Mining & Manufacturing Co.	PCW	Pfister Chemical Works, Inc.	SCP
MNP	Minnesota Paints, Inc.	PD	Parke-Davis & Co.	SCR
MOA	Mona Industries, Inc.	PDG	Poughkeepsie Dyestuff Corp.	SDC
MOB	Mobay Chemical Co.	PEK	Peck's Products Co.	
MON	Monsanto Chemical Co.	PEN	S. B. Penick & Co.	SDG
MOR	Mineral Oil Refining Co.	PER	Perry & Derrick Co.	SDH
MOT	Motomco, Inc.	PET	Petroleum Chemicals, Inc.	
MR	Benjamin Moore & Co.	PFN	Pfanstiehl Laboratories, Inc.	SDW
MRA	Metro-Atlantic, Inc.	PFM	Phelan-Faust Paint Manufacturing Co.	SED
MRB	Marblette Corp.	PFZ	Chas. Pfizer & Co., Inc.	SEM
MRD	Marden-Wild Corp.	PG	Procter & Gamble Manufacturing Co.	SF
MRK	Merck & Co., Inc.	PGU	Perkins Glue Co.	SFA
MRN	Morningstar Paisley, Inc.	PIL	Pilot Chemical Co. of California	
MRT	Morton Chemical Co.	PIT	Pitt-Consol Chemical Co.	SH
MRV	Marlowe-Van Loan Corp.	PLC	Phillips Chemical Co.	SHC
MRW	Morwear Paint Co.	PLP	Phillips Petroleum Co.	SHF
MRX	Max Marx Color & Chemical Co.	PLS	Plastics Engineering Co.	
MSC	Mississippi Chemical Corp.	PNX	Phoenix Oil Co.	SHL
MTC	Monsanto Chemical Co., Plastics Div.	PPG	Pittsburgh Plate Glass Co.	SHO
MTL	Metalsalts Corp.	PRD	Productol Co.	SHP
MTO	Montrose Chemical Corp. of California	PRE	Premium Chemicals, Inc.	SHW
MTR	Montrose Chemical Co.	PRM	Pfaudler Permutit, Inc., Permutit Co. Div.	SID
MYW	Maywood Chemical Works	PRO	Pure Oil Co.	SIM
NEO	Norda Essential Oil & Chemical Co., Inc.	PRP	M. W. Parsons-Plymouth, Inc.	SIN
NEP	Nepera Chemical Co., Inc.	PRS	Presto Plastic Products Co., Inc.	SIP
NES	Nease Chemical Co., Inc.	PRT	Pratt & Lambert, Inc.	SK
NEV	Neville Chemical Co.	PRX	Purex Corp., Ltd.	SLC
NIL	Nilok Chemicals, Inc.	PSP	Puget Sound Pulp & Timber Co.	SLV
NON	A. P. Nonweiler Co.	PTT	Petro-Tex Chemical Corp.	SM
NOP	Nopco Chemical Co., Inc.	PUB	Publicker Industries, Inc.	SNA
NOR	Norwich Pharmacal Co.	PUL	Paul-Lewis Laboratories, Inc.	SNC
NPC	National Petro-Chemicals Corp.	PYL	Polychemical Laboratories, Inc.	SNM
NPI	National Polychemicals, Inc.	PYR	Poly Resins, Inc.	SNP
NSC	National Starch & Chemical Corp.	PYZ	Polyrez Co., Inc.	SNT
NSP	National Southern Products Corp.	QCP	Quaker Chemical Products Corp.	SNW
NTB	National Biochemical Co.	QKO	Quaker Oats Co.	SOC
NTC	National Casein Co.	RAB	Raybestos-Manhattan, Inc.	SOH
NTL	National Lead Co.	RB	Robert & Co., Inc.	SOI
NW	Northwestern Chemical Co.	RBC	Roberts Chemicals, Inc.	SOL
NYC	American Dyewood Co., New York Color & Chemical Co. Div.	RCD	Richardson Co.	SON
NYP	New York & Pennsylvania Co., Inc.	RCI	Reichhold Chemicals, Inc.	SOR
OB	O'Brien Corp.	RED	Red Spot Paint & Varnish Co., Inc.	SOS
ODB	Odessa Butadiene Co.	REL	Reliance Varnish Co., Inc.	SPC
ODS	Odessa Styrene Co.	REM	Remington Arms Co., Inc.	SPD
OH	Ohio Chemical & Surgical Equipment Co.	REP	Republic Creosoting Co.	SPL
OIL	Oil & Chemical Products, Inc.	RET	Rayette, Inc., Chemical Div.	SPN
OLC	Old Colony Tar Co., Inc.	REZ	Rezolin, Inc.	SPP
OLH	Old Hickory Chemical Co., Inc.	RGC	Rogers Corp.	SPR
OMB	Olin Mathieson Chemical Corp., Blockson Chemical Co. Div.	RH	Rohm & Haas Co.	SRL
OMC	Olin Mathieson Chemical Corp., Chemicals Div.	RIC	Richfield Oil Corp.	SRR
OMS	Olin Mathieson Chemical Corp., E. R. Squibb & Sons Div.	RIK	Riker Laboratories, Inc.	STA
ONX	Onyx Chemical Corp.	RIL	Reilly Tar & Chemical Corp.	STD
OPC	Orbis Products Corp.	RIV	Riverdale Chemical Co.	STG
ORG	Organics, Inc.	RMC	Rinshed-Mason Co.	STN
ORO	Oronite Chemical Co.	ROC	Rock Hill Printing & Finishing Co.	STP
ORT	Ortho Chemical Corp.	ROM	Roma Chemical Corp.	STS
OSB	C. J. Osborn Co.	ROS	Rosett Chemicals, Inc.	STT
OTT	Ottol Oil Co.	ROY	Royce Chemical Co.	SUC
PAI	Pennsylvania Industrial Chemical Corp.	RSA	R. S. A. Corp.	SUM
PAN	Pan American Petroleum Corp.	RT	F. Ritter & Co.	SUN
PAR	Pennsylvania Refining Co.	RTC	Ritter Chemical Co., Inc.	SVT
PAS	Pennsalt Chemicals Corp.	RUB	Rubber Corp. of America	SW
PAT	Patent Chemicals, Inc.	RUR	Ruberoid Co.	SWC
PBS	Pabst Brewing Co.	SAC	Standard Agricultural Chemicals, Inc.	SWI
		SAL	Dr. Salsbury's Laboratories	SYC
		SAN	Sandoz, Inc.	SYF
		SBR	Schwarz BioResearch, Inc.	SYF

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TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1959--Continued

Code	Name of company	Code	Name of company
SCC	Standard Chlorine Chemical Co., Inc.	SYV	Synvar Corp.
SCF	Schaefer Varnish Co., Inc.	TAE	Thomas A. Edison Industries, McGraw-Edison Co.
SCH	Schering Corp.	TAR	Tar Distilling Co., Inc.
SON	Schenectady Varnish Co., Inc.	TAY	Taylor Fibre Co.
SCO	Scholler Bros., Inc.	TBK	Trubek Laboratories
SCP	Standard Chemical Products, Inc.	TDC	Diversey Corp.
SCR	R. P. Scherer Corp.	TEK	Refined Products Corp.
SDC	American Marietta Co., Southern Dyestuff Co. Div.	TGL	Triangle Chemical Co.
SDG	Sterling Drug, Inc., Glenbrook Laboratories Div.	THC	Thompson Chemical Co.
SDH	Sterling Drug, Inc., Hilton-Davis Chemical Co. Div.	TKL	Thiokol Chemical Corp.
SDW	Sterling Drug, Inc., Winthrop Laboratories Div.	TMC	Thompson Chemicals Corp.
SED	Seidlitz Paint & Varnish Co.	TMH	Thompson-Hayward Chemical Co.
SEM	Seamco Chemical Co.	TMS	Thomasset Colors, Inc.
SF	Stauffer Chemical Co.	TN	Tennessee Corp.
SFA	Stauffer Chemical Co., Anderson Chemical Co. Div.	TNA	Ethyl Corp.
SH	Stein, Hall & Co., Inc.	TNP	Tennessee Products & Chemical Corp.
SHC	Shell Chemical Corp.	TRC	Toms River-Cincinnati Chemical Corp.
SHF	National Dairy Products Corp., Sheffield Chemical Co. Div.	TRJ	Trojan Powder Co.
SHL	Shulton, Inc.	TRP	Treplow Chemical Co.
SHO	Shell Oil Co.	TTX	Detrex Chemical Industries, Inc.
SHP	Shepherd Chemical Co.	TX	Texaco, Inc.
SHW	Shawinigan Resins Corp.	TXB	Texas Butadiene & Chemical Corp.
SID	George F. Siddall Co., Inc.	TXC	Tex Chemical Co.
SIM	Simpson Redwood Co.	TUS	Texas-U.S. Chemical Co.
SIN	Sinclair Refining Co.	TV	Tousey Varnish Co.
SIP	James B. Sipe & Co.	UBS	U B S Chemical Corp.
SK	Smith, Kline & French Laboratories	UCC	Union Carbide Corp., Union Carbide Chemicals Co. Div.
SLC	Soluol Chemical Co., Inc.	UCP	Union Carbide Corp., Union Carbide Plastics Co. Div.
SLV	Salvo Chemical Corp.	UCS	Union Carbide Corp., Silicones Div.
SM	Socony Mobil Oil Co., Inc.	UDI	Universal Detergents, Inc., and Petrochemicals Co.
SNA	Sun Chemical Corp., Ansbacher-Siegle Corp. Div.	UHL	Paul Uhlich & Co., Inc.
SNC	Sunoco Products Co.	UNC	United Cork Companies
SNM	Sun Chemical Corp., Ampruf Paint Co. Div.	UNG	Ungerer & Co.
SNP	Sun Chemical Corp., Pigment Div.	UOC	Union Oil Co. of California
SNT	Suntide Refining Co.	UPF	United States Pipe & Foundry Co.
SNW	Sun Chemical Corp., Warwick Chemical Co. Div.	UPJ	Upjohn Co.
SOC	Standard Oil Co. of California	UPM	Universal Oil Products Co., Universal Polychem Manufacturing Div.
SOH	Sohio Chemical Co.	URC	United Rubber & Chemical Co.
SOI	Standard Oil Co. of Indiana	USB	U.S. Borax Research Corp.
SOL	Solar Chemical Corp.	USI	National Distillers & Chemical Corp., U.S. Industrial Chemicals Co. Div.
SON	L. Sonneborn Sons, Inc.	USO	U.S. Oil Co.
SOR	Southern Resin Glue Co.	USP	U.S. Plastic Products Corp.
SOS	Southern Sizing Co.	USR	United States Rubber Co., Naugatuck Chemical Div.
SPC	Specific Pharmaceuticals, Inc.	UWS	Universal Western Chemical Corp.
SPD	General Electric Co., Silicone Products Dept.	VAL	Valchem
SPL	Spaulding Fibre Co., Inc.	VAR	Reichhold Chemicals, Inc., Varcum Chemical Corp. Div.
SPN	Spencer Chemical Co.	VC	Virginia-Carolina Chemical Corp.
SPP	Socony Paint Products Co.	VEL	Velsicol Chemical Corp.
SPR	Specialty Resins Co.	VIC	Stauffer Chemical Co., Victor Chemical Works Div.
SRL	G. D. Searle & Co.	VIN	Vineland Chemical Co.
SRR	Fred'k A. Stresen-Reuter, Inc.	VIS	Visco Products Co.
STA	A. E. Staley Manufacturing Co.	VLY	Verley Chemical Co., Inc.
STD	Standard Dyestuff Corp.	VNC	Vanderbilt Chemical Corp.
STG	Wm. J. Stange Co.	VND	Van Dyk & Co., Inc.
STN	Standard Naphthalene Products Co., Inc.	VPC	Verona-Pharma Chemical Corp.
STP	Stepan Chemical Co.	VPT	Vickers Petroleum Co., Inc.
STS	Stansbury Chemical Co., Inc.	VTM	Vitamins, Inc.
STT	Standard-Toch Chemicals, Inc.	VTV	Vita-Var Corp.
SUC	Standard Ultramarine & Color Co.	WAS	T. F. Washburn Co.
SUM	Summit Chemical Products Corp.	WAT	Watertown Manufacturing Co.
SUN	Sun Oil Co.	WAW	W. A. Wood Co.
SVT	Solvent Chemical Co., Inc.	WBG	White & Bagley Co.
SW	Sherwin-Williams Co.	WDC	Western Dry Color Co.
SWC	S & W Chemical Co., Inc.	WEB	R. D. Webb & Co., Inc.
SWT	Swift & Co.	WER	Werner Drug & Chemical Co.
SYC	Synthetic Chemicals, Inc.	WEV	Geo. D. Wetherill Varnish Co.
SYP	Synthetic Products Co.	WHI	White & Hodges, Inc.
SYR	Synco Resins, Inc.	WHW	Whittemore-Wright Co., Inc.
		WIC	Wica Co., Inc.
		WIL	Wilson & Co., Inc., Wilson Laboratories Div.

TABLE 23. -- *Synthetic organic chemicals: Directory of manufacturers, 1959* --Continued

Code	Name of company	Code	Name of company
WLM	Willmot & Cassidy, Inc.	WTL	Wallace & Tiernan, Inc., Lucidol Div.
WOC	Wilson Organic Chemicals, Inc.	WIM	Wallace & Tiernan, Inc.
WON	Woonsocket Color & Chemical Co.	WTT	John H. Witte & Sons, Resin Div.
WPC	Warren Paint & Color Co.	WTU	Witco Chemical Co., Ultra Chemical Works, Inc. Div.
WRN	Warner-Jenkinson Manufacturing Co.	WVA	West Virginia Pulp & Paper Co., Polychemicals Div.
WRS	Wheeler, Reynolds & Stauffer	WYN	Wyandotte Chemicals Corp.
WST	Westville Laboratories, Inc.	WYT	American Home Products Corp., Wyeth Laboratories, Inc. Div.
WTC	Witco Chemical Co., Inc.	YAW	Young Aniline Works, Inc.
WTH	Wallace & Tiernan, Inc., Harchem Div.		

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TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1959--Continued

SECTION 2. ALPHABETICAL DIRECTORY BY COMPANY

[Names of synthetic organic chemical manufacturers that reported production or sales to the U.S. Tariff Commission for 1959 are listed below alphabetically, together with their identification codes as used in tables in pt. III. Sec. 1 of this table lists these manufacturers in the order of their identification codes]

Code	Name of company	Office address (location of plant given in parentheses if not in same city as office)
ABB	Abbott Laboratories-----	14th St. and Sheridan Rd., North Chicago, Ill.
ACR	Acme Resin Corp-----	1401 Circle Ave., Forest Park, Ill.
ADC	Ad-Co Color Corp-----	66 Lister Ave., Newark 5, N.J.
AIR	Air Reduction Co., Inc.: Air Reduction Chemical Co. Div-----	150 E. 42d St., New York 17, N.Y. (Calvert City, Ky.; and Bound Brook, N.J.).
COL	Colton Chemical Co. Div-----	1747 Chester Ave., Cleveland 14, Ohio (Elkton, Md.).
ALC	Alco Oil & Chemical Corp-----	Trenton Ave. and William St., Philadelphia 34, Pa.
ALL	Alliance Color & Chemical Co-----	33 Avenue P, Newark 5, N.J.
ACG	Allied Chemical Corp.: General Chemical Div-----	40 Rector St., New York 6, N.Y. (Danville, Ill.; Baton Rouge, La.; Baltimore, Md.; Buffalo, N.Y.; and Marcus Hook, Pa.).
ACF	National Aniline Div-----	40 Rector St., New York 6, N.Y. (Buffalo, N.Y.; Hopewell, Va.; and Moundsville, W. Va.).
ACN	Nitrogen Div-----	40 Rector St., New York 6, N.Y. (Omaha, Nebr.; South Point, Ohio; and Orange, Tex.).
ACP	Plastics & Coal Chemicals Div-----	40 Rector St., New York 6, N.Y. (Fairfield, Ala.; Calumet City and Chicago, Ill.; Detroit, Mich.; Edgewater and Whippany, N.J.; Ironton, Toledo, and Youngstown, Ohio; Bethlehem, Frankford, and Philadelphia, Pa.).
ACS	Semet-Solvay Petrochemical Div-----	40 Rector St., New York 6 (Tonawanda), N.Y.
ACO	Solvay Process Div-----	P.O. Box 271, Syracuse 1 (Village of Solvay), N.Y.
ALX	Alox Corp-----	3943 Buffalo Ave., Niagara Falls, N.Y.
AML	Amalgamated Chemical Corp-----	Ontario and Rorer Sts., Philadelphia 34, Pa.
AMC	Amchem Products, Inc-----	Amber, Pa. (Niles, Calif.; and St. Joseph, Mo.).
AAC	American Alcolac Corp-----	3440 Fairfield Rd., Baltimore 26, Md.
AMK	American Alkyd Industries-----	Broad & 14th Sts., Carlstadt, N.J.
AAE	American Aniline & Extract Co., Inc-----	Venango and F Sts., Philadelphia 34, Pa.
AMB	American Bio-Synthetics Corp-----	710 W. National Ave., Milwaukee 4, Wis.
MAR	American Can Co., Marathon Corp. Div-----	Menasha (Green Bay and Rothschild), Wis.
ACY	American Cyanamid Co-----	30 Rockefeller Plaza, New York 20, N.Y. (Azusa, Calif.; Stamford and Wallingford, Conn.; Avondale, La.; Bound Brook, Linden, Princeton, and Woodbridge, N.J.; Pearl River, N.Y.; Charlotte, N.C.; Cincinnati and Marietta, Ohio; Bridgeville, Pa.; Damascus, Va.; and Willow Island, W. Va.).
NYC	American Dyewood Co., New York Color & Chemical Co. Div.	374 Main St., Belleville 9, N.J.
WYT	American Home Products Corp., Wyeth Laboratories, Inc. Div.	P.O. Box 2899, Philadelphia 1 (Westchester), Pa.
AMZ	American Maize Products Co-----	250 Park Ave., New York 17, N.Y.
AMR	American Marietta Co.: Adhesive, Resin & Chemical Div-----	42 S. 3d St., Newark, Ohio; and 3400 13th Ave., S.W., Seattle 4, Wash.
AMF	Ferbert-Schorndorfer Co. Div-----	12815 Elmwood Ave., Cleveland 11, Ohio.
AMS	Ridgway Color & Chemical Co. Div-----	75 Front Street, Ridgway, Pa.
SDC	Southern Dyestuff Co. Div-----	P.O. Box 10098, Charlotte 1 (Sodyeco), N.C.
AMO	American Oil Co. (Texas)-----	P.O. Box 401, Texas City, Tex.
AMP	American Potash & Chemical Corp-----	3000 W. 6th St., Los Angeles 54, Calif.
ASY	American Synthetic Rubber Corp-----	P.O. Box 360, Louisville 1, Ky.
AV	American Viscose Corp-----	1617 Pennsylvania Blvd., Philadelphia 3, Pa. (Meadville, Pa.; and Fredericksburg, Va.).
ALB	Ames Laboratories, Inc-----	132 Water St., S. Norwalk, Conn.
ACC	Amoco Chemicals Corp-----	910 S. Michigan Ave., Chicago 80, Ill. (Joliet, Ill.; and Texas City, Tex.).
ASL	Ansul Chemical Co-----	Staunton Street, Marinette, Wis.
APX	Apex Chemical Co., Inc-----	200 S. 1st St., Elizabethport 1, N.J.
APC	Appleton Coated Paper Co-----	1200 N. Meade St., Appleton, Wis.
ARA	Arapahoe Chemicals, Inc-----	2800 Pearl St., Boulder, Colo.
ADM	Archer-Daniels-Midland Co-----	700 Investors Bldg., Minneapolis, Minn. (Los Angeles, Calif.; Pensacola, Fla.; Minneapolis, Minn.; Valley Park, Mo.; and Newark, N.J.).
ARO	Arco Co-----	7301 Bessemer Ave., Cleveland 27, Ohio.
ARG	Argus Chemical Corp-----	633 Court St., Brooklyn 31, N.Y.
ARC	Armour & Co.: Armour Industrial Chemical Co. Div---	110 N. Wacker Dr., Chicago 6 (McCook), Ill.
ARP	Armour Pharmaceutical Co. Div-----	P.O. Box 511, Kankakee (Bradley), Ill.

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TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1959--Continued

Code	Name of company	Office address (location of plant given in parentheses if not in same city as office)
ARK	Armstrong Cork Co-----	W. Liberty St., Lancaster (Pittsburgh), Pa.
APV	Armstrong Paint & Varnish Works, Inc---	1318-1500 S. Kilbourn Ave., Chicago 23, Ill.
AHC	Arnold, Hoffman & Co., Inc-----	55 Canal Street, Providence 1, R.I. (Dighton, Mass.; Charlotte, N.C.; and Cincinnati, Ohio).
ASH	Ashland Oil & Refining Co-----	1401 Winchester Ave., Ashland, Ky. (Tonawanda, N.Y.).
AST	Astra Pharmaceutical Products, Inc-----	7 Neponset St., Worcester 6, Mass.
ATL	Atlantic Chemical Corp-----	153 Prospect St., Passaic (Nutley), N.J.
ATR	Atlantic Refining Co-----	260 S. Broad St., Philadelphia 1, Pa. (Philadelphia, Pa.; and Port Arthur, Tex.).
APD	Atlas Powder Co-----	Wilmington 99, Del. (New Castle, Del.; Memphis, Tenn.; and Houston, Tex.).
APR	Atlas Processing Co-----	P.O. Box 1786, 3546 Midway St., Shreveport, La.
ARF	Atlas Refinery, Inc-----	142 Lockwood St., Newark 5, N.J.
AUG	Augusta Chemical Co-----	P.O. Box 660, Augusta, Ga.
BAC	Baker Castor Oil Co-----	40 Avenue A, Bayonne, N.J. (Los Angeles, Calif.; and Bayonne, N.J.).
BKC	J. T. Baker Chemical Co-----	600 N. Broad St., Phillipsburg, N.J.
BKT	Taylor Chemical Div-----	600 N. Broad St., Phillipsburg, N.J. (Penn Yan, N.Y.).
BAL	Baltimore Paint & Chemical Corp-----	2325 Annapolis Ave., Baltimore 30, Md.
BAT	Bates Chemical Co-----	Scottdale Road, Lansdowne, Pa.
BCN	Beech-Nut Life Savers, Inc-----	Canajoharie, N.Y.
BL	Belle Chemical Co., Inc-----	534 Pearl St., Reading (Womelsdorf), Pa.
BEN	Bennett's-----	65 W. 1st South, Salt Lake City 10, Utah.
BPC	Benzol Products Co-----	237 South St., Newark 5 (Nixon), N.J.
BRK	F. W. Berk & Co., Inc-----	Wood-Ridge, N.J.
BKL	Berkeley Chemical Corp-----	11 Summit Ave., Berkeley Heights, N.J.
BIF	Bioform Corp-----	P.O. Box 1375, Wasco, Calif.
BIS	Bios Laboratories, Inc-----	17 W. 60th St., New York 23, N.Y.
BRD	Bird & Son, Inc., Floor Covering Div---	E. Walpole (Norwood), Mass.
BOR	Borden Chemical Co-----	350 Madison Ave., New York 17, N.Y. (Demopolis, Ala.; Compton, Calif.; Illiopolis, Ill.; Leominster, North Andover, and Peabody, Mass.; Middlesex, N.J.; Bainbridge, N.Y.; Fayetteville, N.C.; Springfield, Oreg.; Philadelphia, Pa.; Kent and Seattle, Wash.; and Browntown, Wis.).
MCB	Borg-Warner Corp., Marbon Chemical Div-	Box 68, Washington, W. Va.
BOY	Walter N. Boysen Co-----	1101 42d St., Oakland 8, Calif.
BRS	Bristol-Meyers Co., Bristol Laboratories Div.	P.O. Box 657, Syracuse 1, N.Y.
BLN	Brooklyn Color Works, Inc-----	Morgan & Norman Avenues, Brooklyn 22, N.Y.
BR	Brown Co-----	650 Main St., Berlin, N.H.
ABR	Andrew Brown Co-----	5431 District Blvd., Los Angeles 22, Calif.
BRU	M. A. Bruder & Sons, Inc-----	52d St. & Grays Ave., Philadelphia 43, Pa.
BRY	Bryant Chemical Corp-----	6 North St., N. Quincy 71, Mass.
BUK	Buckeye Cellulose Corp-----	2899 Jackson Ave., Memphis 8, Tenn.
BKM	Buckman Laboratories, Inc-----	1256 N. McLean, Memphis 8, Tenn.
BSC	Burkart-Schier Chemical Co-----	1228 Chestnut St., Chattanooga 2, Tenn.
BUR	Burroughs Wellcome & Co. (U.S.A.), Inc-	1 Scarsdale Rd., Tuckahoe 7, N.Y.
BZ	Bzura, Inc-----	Clark St. & Broadway, Keyport, N.J.
CBT	Samuel Cabot, Inc-----	246 Summer St., Boston 10 (Chelsea), Mass.
CAD	Cadet Chemical Corp-----	2153 Lockport-Olcott Rd., Burt, N.Y.
CAU	Calcasieu Chemical Corp-----	P.O. Box 6, 821 Gravier St., New Orleans 6 (Lake Charles), La.
CIK	California Ink Co., Inc-----	711 Camelia St., Berkeley 10, Calif.
CSP	California Spray-Chemical Corp-----	Lucas & Ortho Way, Richmond, Calif.
CAP	Capital Plastics, Inc-----	250 Mill St., Rochester 14, N.Y. (Brohead, Wis.).
CCW	Carlisle Chemical Works, Inc-----	West Street, Reading 15, Ohio.
CCA	Advance Solvents & Chemical Div-----	500 Jersey Ave., New Brunswick, N.J.
CM	Carpenter-Morton Co-----	376 3d St., Everett 49, Mass.
CRS	Carus Chemical Co., Inc-----	1375 8th St., LaSalle, Ill.
CWN	Carwin Co-----	Stiles Lane, North Haven, Conn.
CRY	Cary Chemicals, Inc-----	P.O. Box 38, East Brunswick (Flemington), N.J.
CAT	Catalin Corp. of America-----	1 Park Ave., New York, N.Y. (Calumet City, Ill.; Fords, N.J.; and Thomasville, N.C.).
CEL	Celanese Corp. of America: Celanese Chemical Co. Div-----	180 Madison Avenue, New York 16, N.Y. (Amcelle and Cumberland, Md.; Celriver and Rockhill, S.C.; Bishop and Pampa, Tex.; Celco and Narrows, Va.; and Gallipolis Ferry and Point Pleasant, W. Va.).
	Celanese Plastics Co. Div-----	744 Broad St., Newark 2, N.J. (Belvidere and Newark, N.J.; and Deer Park, Tex.).
CEN	Central Paint & Varnish Works, Inc-----	59 Prospect St., Brooklyn 1, N.Y.
CCC	Chase Chemical Corp-----	3527 Smallman St., Pittsburgh 1, Pa.
CHG	Chemagro Corp-----	Hawthorn Rd., Kansas City 20, Mo.
CFX	Chemfax, Inc-----	P.O. Box 763, Gulfport, Miss.
CIS	Chemical Insecticide Corp-----	30 Whitman Ave., Metuchen, N.J.

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TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1959--Continued

Code	Name of company	Office address (location of plant given in parentheses if not in same city as office)
CMC	Chemical Manufacturing Co., Inc-----	Ashland, Mass.
CPR	Chemical Process Co-----	1901 Spring St., Redwood City, Calif.
CPD	Chemical Products Corp-----	P.O. Box 815, Cartersville, Ga.
CCO	Chemico, Inc-----	2508 E. Bailey Rd., Cuyahoga Falls, Ohio.
CKL	Chemlek Laboratories, Inc-----	4040 W. 123d St., Worth, Ill.
CS	Chemstrand Corp-----	350 5th Ave., New York 1, N.Y. (Gonzales, Fla.).
CPC	Childs Pulp Colors, Inc-----	43 Summit St., Brooklyn 31, N.Y.
CBP	Ciba Pharmaceutical Products, Inc-----	556 Morris Ave., Summit, N.J.
CIT	City Chemical Corp-----	132 West 22d St., New York 11, N.Y. (Jersey City, N.J.).
CLY	W. A. Cleary Corp-----	P.O. Box 749, New Brunswick (Franklin Township), N.J.
CLV	Clover Chemical Co-----	P.O. Box 10865, Pittsburgh 36, Pa.
CPL	Coast Paint & Lacquer Co., Inc-----	P.O. Box 1113, Houston 1, Tex.
CCS	Coastwise Petroleum Co-----	1127 Munsey Bldg., Baltimore 2, Md. (Good Hope, La.).
COK	Cokerille Chemicals, Inc-----	Greenwood, Va.
CP	Colgate-Palmolive Co-----	300 Park Avenue, New York 22, N.Y.
CW	Collett-Week Corp-----	Quimby St., Ossining, N.Y.
CC	Collway Colors, Inc-----	15 Market St., Paterson 1, N.J.
CLB	Columbia Organic Chemicals, Inc-----	1012 Drake Street, Columbia, S.C.
CMC	Comcolloid, Inc-----	3240 Grace Ave., Bronx 69, N.Y.
CCM	Commercial Solvents Corp-----	260 Madison Ave., New York 16, N.Y.
CON	Concord Chemical Co., Inc-----	205 S. 2d St., Camden 1, N.J.
CDF	Concord Dyeing & Finishing Co., Inc-----	3470 3d Ave., New York 56, N.Y.
CPT	Consolidated Paint Co-----	3101 E. 11th St., Los Angeles 23, Calif.
CWP	Consolidated Water Power & Paper Co-----	Wisconsin Rapids, Wis.
CD	Continental-Diamond Fibre Corp-----	70 S. Chapel St., Newark, Del. (Bridgeport, Pa.).
CO	Continental Oil Co-----	1000 South Pine, Ponca City, Okla. (Westlake, La.; and Ponca City, Okla.).
CPV	Cook Paint & Varnish Co-----	P.O. Box 389, Kansas City 41, Mo.
COP	Coopers Creek Chemical Corp-----	River Rd., W. Conshohocken, Pa.
CPY	Copolymer Rubber & Chemical Corp-----	P.O. Box 2591, Baton Rouge 1, La.
CRN	Corn Products Co-----	17 Battery Place, New York 4, N.Y. (Argo, Ill.).
CSD	Cosden Petroleum Corp-----	P.O. Box 1311, Big Spring, Tex.
CWL	Cowles Chemical Co-----	7016 Euclid Ave., Cleveland 3, Ohio (Skaneateles Falls, N.Y.).
ALT	Crompton & Knowles Corp., Althouse Chemical Co. Div.	530 Pear St., Reading, Pa.
CBY	Crosby Chemicals, Inc-----	Picayune, Miss. (De Ridder, La.; and Picayune, Miss.).
CCP	Crown Central Petroleum Corp-----	American Bldg., Baltimore 2, Md. (Pasadena, Tex.).
CRC	Crown Chemical Corp-----	240 India St., Providence 3, R.I.
CRO	Crownoll Chemical Co., Inc-----	2-14 49th Ave., Long Island 1, N.Y.
CRT	Crown Tar & Chemical Works, Inc-----	900 Wewatta St., Denver 4, Colo.
CRZ	Crown Zellerbach Corp., Chemical Products Div.	Camas, Wash. (Lebanon, Oreg.).
CUT	Cutter Laboratories-----	4th & Parker Streets, Berkeley 10, Calif.
DAN	Dan River Mills, Inc-----	Danville, Va.
DAV	H. B. Davis Co-----	Bush and Severn Streets, Baltimore 30, Md.
DLI	Dawe's Laboratories, Inc-----	4800 S. Richmond St., Chicago 32, Ill. (Chicago, Ill.; and Newaygo, Mich.).
DEC	Deacy Products Co-----	120 Potter St., Cambridge 42, Mass.
GRC	Deere & Co., Grand River Chemical Div-----	Pryor, Okla.
DCI	Delaware Chemicals, Inc-----	50 Murray St., Staten Island 9, N.Y.
DLH	Delhi-Taylor Oil Corp-----	Box 4067, Corpus Christi, Tex.
DLM	Delmar Chemical Co., Inc-----	P.O. Box 108, Elkton, Md.
DLT	Delta Chemical Works, Inc-----	23 W. 60th St., New York 23, N.Y.
DEP	DePaul Chemical Co., Inc-----	44-27 Purvis St., Long Island 1, N.Y.
DSO	DeSoto Chemical Coatings, Inc-----	1350 S. Kostner Ave., Chicago 23, Ill.
TTX	Detrex Chemical Industries, Inc-----	P.O. Box 501, Detroit 32, Mich. (Ashtabula, Ohio).
DEX	Dexter Chemical Corp-----	845 Edgewater Rd., New York 59, N.Y.
DA	Diamond Alkali Co-----	300 Union Commerce Bldg., Cleveland 14, Ohio (Newark, N.J.; Fairport Harbor, Ohio; Houston and Pasadena, Tex.; and Belle, W. Va.).
TDC	Diversey Corp-----	1820 Roscoe St., Chicago 13, Ill.
DOD	Donald A. Dodd-----	Rt. 5, Box 621, Everett, Wash.
DOM	Dominion Products, Inc-----	10-40 44th Dr., Long Island 1, N.Y.
DGS	Douglas Chemical Corp-----	1624 Darrow Ave., Evanston, Ill.
DOW	Dow Chemical Co-----	Midland, Mich. (Pittsburgh and Torrance, Calif.; Gales Ferry, Conn.; and Freeport, Tex.).
DCC	Dow Corning Corp-----	P.O. Box 592, Midland, Mich.
DRW	E. F. Drew & Co., Inc-----	15 E. 26th St., New York 10, N.Y. (Boonton, N.J.).
DRG	Drug Processors, Inc-----	1219 E. Church St., Adrian, Mich.
DUN	Frank W. Dunne Co-----	1007 41st St., Oakland 8, Calif.

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TABLE 23.--Synthetic organic chemicals: Directory of manufacturers, 1959--Continued

Code	Name of company	Office address (location of plant given in parentheses if not in same city as office)	Code	
DUP	E. I. duPont de Nemours & Co., Inc-----	10th and Market Sts., Wilmington 98, Del. (Birmingham, Ala.; Antioch and San Francisco, Calif.; Louviers, Colo.; Fairfield, Conn.; Edge Moor, Newport, and Seaford, Del.; Tucker, Ga.; Chicago and Seneca, Ill.; E. Chicago and Fortville, Ind.; Clinton and Ft. Madison, Iowa; Louisville and Wurtland, Ky.; Baltimore, Md.; Everett and Leominster, Mass.; Ecorse, Flint, Montague, and Wyandotte, Mich.; Carl Junction, Mo.; Arlington, Carney's Point, Deepwater, Gibbstown, Kearny, Linden, Newark, Parlin, Perth Amboy, and Pompton Lakes, N.J.; Buffalo, Dresden, Newburgh, Niagara Falls, and Rochester, N.Y.; Kingston, N.C.; Circleville, Cleveland, Columbia Park, and Toledo, Ohio; Moosic, Philadelphia, and Towanda, Pa.; Camden, S.C.; Chattanooga, Columbia, Memphis, and Old Hickory, Tenn.; Beaumont, LaPorte, Orange, and Victoria, Tex.; Martinsville, Richmond, and Waynesboro, Va.; DuPont, Wash.; Belle, Charleston, Martinsburg, and Parkersburg, W. Va.; and Barksdale, Wis.).	GGY	Ge
DSC	Dye Specialties, Inc-----	26 Journal Sq., Jersey City 6, N.J.	GAJ	Ge
DYK	Dykem Co-----	2307 N. 11th St., St. Louis 6, Mo.	GNC	Ge
EAK	J. S. & W. R. Eakins, Inc-----	55 Berry St., Brooklyn 11, N.Y.	GE	
EST	Eastern States Petroleum & Chemical Co-----	P.O. Box 5008, Harrisburg Station, Houston 12, Tex.	GEI	
EK	Eastman Kodak Co-----	343 State St., Rochester 4, N.Y.	SPD	
EKT	Tennessee Eastman Co. Div-----	Eastman Rd., Kingsport, Tenn.	GNF	Ge
EKX	Texas Eastman Co. Div-----	P.O. Box 2068, Longview, Tex.	GNM	Ge
EDY	Eddystone Manufacturing Co-----	P.O. Box 471, Wilmington 99, Del. (Eddystone, Pa.).	GNT	Ge
TAE	Thomas A. Edison Industries, McGraw-Edison Co.	120 S. LaSalle St., Chicago 3, Ill. (Stuyvesant Falls, N.Y.).	GRG	P.
EMR	Emery Industries, Inc-----	4300 Carew Tower, Cincinnati 2, Ohio.	GIL	G.
EMK	Emkay Chemical Co-----	319 2d St., Elizabethport, N.J.	GIV	G.
EN	Endo Laboratories, Inc-----	84-40 101st St., Richmond Hill 18, N.Y.	GLD	G.
ERD	Erdmann Chemical Co., Inc-----	70 Lister Ave., Newark 5, N.J.	BFG	B
ESC	Escambia Chemical Corp-----	P.O. Box 467, Pensacola (Pace), Fla.		
TNA	Ethyl Corp-----	100 Park Ave., New York 17, N.Y. (Pittsburg, Calif.; Baton Rouge, La.; Orangeburg, S.C.; and Pasadena, Tex.).	GGC	G.
ETD	Ethyl-Dow Chemical Co-----	Midland, Mich. (Freeport, Tex.).	GRD	
EVN	Evans Chemetics, Inc-----	250 E. 43d St., New York 17 (Waterloo), N.Y.	GCC	
FMT	Fairmount Chemical Co., Inc-----	117 Blanchard St., Newark 5, N.J.	GRP	
FI	Farley & Loetscher Manufacturing Co-----	7th & White Sts., Dubuque, Iowa.	GPR	C
FRM	Farmers' Chemical Co-----	P.O. Box 591, Kalamazoo, Mich.	GRV	I
FAR	Farnow, Inc-----	4-83 48th Ave., Long Island City 1, N.Y.	FG	
FRR	Estate of W. U. Farrington-----	Box 389, East Greenwich (Warwick), R.I.	GRA	
FCL	Federal Color Laboratories, Inc-----	4633 Forest Ave., Norwood, Cincinnati 12, Ohio.	GRS	
FEL	Felton Chemical Co., Inc-----	599 Johnson Ave., Brooklyn 37, N.Y.	GRW	
FER	Ferro Chemical Corp-----	P.O. Box 349, 450 Krick Rd., Bedford, Ohio.	OTS	
FBC	Fiber Chemical Corp-----	P.O. Box 218, Matawan (Cliffwood), N.J.	GUA	
FBR	Fibreboard Paper Products Corp-----	P.O. Box 4331, Oakland 23 (Emeryville), Calif.	GOC	
FIN	Fine Organics, Inc-----	205 Main St., Lodi, N.J.	GDC	
FIR	Firestone Tire & Rubber Co.: Firestone Plastics Co. Div-----	P.O. Box 690, Pottstown, Pa.	GUY	
FRS	Firestone Synthetic Rubber & Latex Co. Div.	381 W. Wilbeth Rd., Akron 1, Ohio.	HMC	
FLO	Florasynth Laboratories, Inc-----	900 Van Nest Ave., New York 62, N.Y.	HLI	
FLA	Florida Chemical Co., Inc-----	P.O. Box 997, Lake Alfred, Fla.	HAB	
FMB	Food Machinery & Chemical Corp.: Becco Chemical Div-----	Sawyer Ave. & River Rd., Buffalo 7 (Tonawanda), N.Y.	HAL	
FMP	Chemicals & Plastics Div-----	1701 Patapsco Ave., Baltimore 26, Md. (Nitro, W. Va.).	HAM	
FMW	Chlor-Alkali and Mineral Products Div.	161 E. 42d St., New York 17, N.Y. (Newark, Calif.; and S. Charleston, W. Va.).	HMP	
FOR	Foremost Food & Chemical Co., El Dorado Div.	P.O. Box 599, Oakland 4, Calif.	HAN	
FCM	Formica Corp., Subsidiary of American Cyanamid Co.	4614 Spring Grove Ave., Cincinnati 32, Ohio.	HRB	
FH	Foster-Heaton Co-----	16 E. 5th St., Paterson 4, N.J.	HAR	
FCD	France, Campbell & Darling, Inc-----	North Michigan Ave., Kenilworth, N.J.	HSY	
FRE	Freeman Chemical Corp-----	211 E. Main St., Port Washington, Wis. (Ambridge, Pa.; and Saukville, Wis.).	HRT	
FBS	Fries Bros., Inc-----	P.O. Box 8, Carlstadt, N.J.	HLC	
FSH	Frisch & Co., Inc-----	88 E. 11th St., Paterson 4, N.J.	HLN	
FB	Fritzsche Bros., Inc-----	76 9th Ave., New York 11, N.Y. (Clifton, N.J.).	HPC	
FLH	H. B. Fuller Co-----	4819 Industrial Court, Cincinnati 17, Ohio.	HER	
FLW	W. P. Fuller & Co-----	450 E. Grand Ave., S. San Francisco, Calif.	HET	
GAM	Gamma Chemical Corp-----	355 Lexington Ave., New York 17, N.Y. (Great Meadows, N.J.).	HN	
GAN	Gane's Chemical Works, Inc-----	535 5th Ave., New York 17, N.Y. (Carlstadt, N.J.).	HNW	
			HNX	
			HEX	
			HDC	
			HST	
			HOF	
			HFT	

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TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1959--Continued

Code	Name of company	Office address (location of plant given in parentheses if not in same city as office)
GGY	Geigy Chemical Corp-----	P.O. Box 430, Yonkers (Ardsley), N.Y.
GAF	General Aniline & Film Corp., Dyestuff & Chemical Div.-----	435 Hudson St., New York, N.Y. (Calvert City, Ky.; Linden, N.J.; and Rensselaer, N.Y.).
GNC	General Color Co., Inc-----	24 Avenue B, Newark 5, N.J.
GE	General Electric Co.: Chemical Materials Dept-----	1 Plastics Ave., Pittsfield, Mass. (Anaheim, Calif.; Pittsfield, Mass.; and Coshocton, Ohio).
GEI	Insulating Materials Dept-----	23 River Rd., Schenectady 5, N.Y. (Chelsea, Mass.).
SPD	Silicone Products Dept-----	Waterford, N.Y.
GNF	General Foods Corp., Maxwell House Div-----	1125 Hudson St., Hoboken, N.J.
GNM	General Mills, Inc-----	9200 Wayzata Blvd., Minneapolis 26, Minn. (Kankakee, Ill.; and Keokuk, Iowa).
GNT	General Tire & Rubber Co., Chemical Div.-----	1708 Englewood Ave., Akron 9, Ohio (Ashtabula and Mogadore, Ohio; and Odessa, Tex.).
GRG	P. D. George Co-----	5200 N. 2d St., St. Louis 7, Mo.
GIL	Gilman Paint & Varnish Co-----	W. 8th and Pine Sts., Chattanooga 1, Tenn.
GIV	Givaudan Corp-----	109-201 Delawanna Ave., Delawanna, N.J.
GLD	Glidden Co-----	900 Union Commerce Bldg., Cleveland 14, Ohio.
BFG	B. F. Goodrich Co., B. F. Goodrich Chemical Co. Div.-----	3135 Euclid Ave., Cleveland 15, Ohio (Henry, Ill.; Calvert City and Louisville, Ky.; Niagara Falls, N.Y.; and Akron and Avon Lake Village, Ohio).
GGC	Goodrich-Gulf Chemicals, Inc-----	1717 E. 9th St., Cleveland 14, Ohio (Port Neches, Tex.; and Institute, W. Va.).
GYR	Goodyear Tire & Rubber Co-----	1144 E. Market St., Akron 16, Ohio.
GOR	Gordon Chemical Co., Inc-----	88 Webster St., Worcester 3, Mass.
GDN	Gordon Chemicals, Inc-----	Broad & 13th Sts., Carlstadt, N.J. (Wilmington, Del.).
GDL	Gordon-Lacey Chemical Products Co., Inc.-----	57-02 48th St., Maspeth 78, N.Y.
GRD	W. R. Grace & Co.: Dewey & Almy Chemical Div-----	62 Whittemore Ave., Cambridge 40, Mass.
GOC	Grace Chemical Div-----	P.O. Box 4915, Memphis 7 (Woodstock), Tenn.
GRP	Polymer Chemicals Div-----	225 Allwood Rd., Clifton, N.J. (Baton Rouge, La.).
GPR	Grain Processing Corp-----	1600 Oregon St., Muscatine, Iowa.
GRV	Grand Rapids Varnish Corp-----	1350 Steele Ave. SW., Grand Rapids 2, Mich.
FG	Foster Grant Co., Inc-----	289 N. Main St., Leominster, Mass. (Baton Rouge, La.; and Manchester, N.H.).
GRA	Great American Plastics Co-----	85 Factory Street, Nashua, N.H. (Fitchburg, Mass.).
GRS	Great Southern Chemical Corp-----	P.O. Box 4166, Corpus Christi, Tex.
GRW	Great Western Sugar Co-----	Box 5308, Terminal Annex, Denver 17 (Johnstown), Colo.
GTS	Greenwood Textile Supply Co-----	27 Meadow St., Warwick, R.I.
GUA	Guard Chemical Co-----	North Water St., Ossining, N.Y.
GOC	Gulf Oil Corp-----	P.O. Drawer 2100, Houston 1, Tex. (Cleveland, Ohio; Philadelphia, Pa.; and Port Arthur, Tex.).
GDC	Gulf Research & Development Co-----	P.O. Drawer 2038, Pittsburgh 30 (Philadelphia), Pa.
GUY	Guyan Color & Chemical Works, Inc-----	Box 1088, Huntington 1, W. Va.
HMC	H. M. Chemical Co., Ltd-----	754 22d St., Santa Monica, Calif.
HLI	Haag Laboratories, Inc-----	14010 S. Seeley, Blue Island, Ill.
HAB	Halby Products Co., Inc-----	P.O. Box 366, Wilmington 99, Del.
HAL	C. P. Hall Co. of Illinois-----	5245 W. 73d St., Chicago 38, Ill.
HAM	Hampden Color & Chemical Co-----	5 Albany St., Springfield, Mass.
HMP	Hampshire Chemical Corp-----	Poisson Ave., Nashua, N.H.
HAN	Hanna Paint Manufacturing Co., Inc-----	1313 Windsor Ave., Columbus 16, Ohio.
HRB	Harbor Plywood Corp-----	P.O. Box 940, Aberdeen, Wash.
HAR	Harshaw Chemical Co-----	1945 E. 97th St., Cleveland 6, Ohio (Louisville, Ky.; Gloucester City, N.J.; and Hastings, N.Y.).
HSY	Harsyd Chemicals, Inc-----	397 W. 21st St., Holland, Mich.
HRT	Hart Products Corp-----	1440 Broadway, New York 18, N.Y. (Jersey City, N.J.).
HLC	Hartman-Leddon Co., Inc-----	60th & Woodland Ave., Philadelphia 43 (Conshohocken), Pa.
HLN	Helene Curtis Industries, Inc-----	4401 W. North Ave., Chicago 39, Ill.
HPC	Hercules Powder Co-----	900 Market St., Wilmington 99, Del. (Brunswick, Ga.; Mansfield, Mass.; Hattiesburg, Miss.; Burlington, Kenil, and Parlin, N.J.; and Hopewell, Va.).
HER	Heresite & Chemical Co-----	822 S. 14th St., Manitowoc, Wis.
HET	Heterochemical Corp-----	111 E. Hawthorne Ave., Valley Stream, N.Y.
HN	Heyden Newport Chemical Corp-----	342 Madison Ave., New York 17, N.Y. (Fords and Garfield, N.J.).
HNW	Newport Industries Co. Div-----	P.O. Box 911, Pensacola, Fla.
HNX	Nuodex Products Co. Div-----	830 Magnolia Ave., Elizabeth, N.J. (Long Beach, Calif.; and Elizabeth and Newark, N.J.).
HEX	Hexagon Laboratories, Inc-----	3536 Peartree Ave., New York 69, N.Y.
HDG	Hodag Chemical Corp-----	7247 N. Central Park Ave., Chicago 45, Ill.
HST	Hoechst Chemical Corp-----	129 Quidnick St., W. Warwick, R.I.
HOF	Hoffmann-LaRoche, Inc-----	324-424 Kingsland Rd., Nutley 10, N.J.
HFT	Hoffman-Taff, Inc-----	P.O. Box 1246, Springfield, Mo.

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TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1959--Continued

Code	Name of company	Office address (location of plant given in parentheses if not in same city as office)
HCC	Holland Color & Chemical Co-----	492 Douglas Ave., Holland, Mich.
HK	Hooker Chemical Corp-----	Buffalo Ave. & 47th St., Niagara Falls, N.Y.
HKD	Durez Plastics Div-----	Walck Rd., North Tonawanda, N.Y.
HKP	Phosphorus Div-----	Buffalo Ave. & 47th St., Niagara Falls, N.Y.
EFH	E. F. Houghton & Co-----	303 W. Lehigh Ave., Philadelphia 33, Pa.
	Chas. L. Hulsing & Co., Inc.:	
CLC	Clintbrook Chemical Co. Div-----	417 5th Ave., New York 16, N.Y. (Lyndhurst, N.J.).
GLY	Glyco Chemicals Div-----	417 5th Ave., New York 16, N.Y. (Williamsport, Pa.).
	Humble Oil & Refining Co.:	
ESL	Esso Standard Div-----	P.O. Box 551, Baton Rouge 1, La.
ESO	Esso Standard Div-----	P.O. Box 23, Linden, N.J.
HUM	Humble Div-----	P.O. Box 2180, Houston 1 (Baytown), Tex.
HMY	Humphrey-Wilkinson, Inc-----	Devine St., North Haven, Conn.
HUS	Husky Oil Co-----	Box 380, Cody, Wyo. (Dickinson, N.D.).
HYN	Hynson, Westcott & Dunning, Inc-----	Charles & Chase Sts., Baltimore 1, Md.
IMP	Imperial Color Chemical & Paper Corp-----	P.O. Box 231, Glens Falls, N.Y.
IDC	Industrial Dyestuff Co-----	P.O. Box 4249, Massasoit Ave., E. Providence 14, R.I.
INL	Inland Steel Container Co-----	6532 S. Mendar Ave., Chicago 38, Ill.
	Interchemical Corp.:	
ICC	Color & Chemicals Div-----	150 Wagaraw Rd., Hawthorne, N.J.
ICF	Finishes Div-----	224 McWhorter St., Newark 1, N.J. (Los Angeles, Calif.; Chicago, Ill.; Elizabeth, N.J.; and Cincinnati, Ohio).
IFF	International Flavors & Fragrances, Inc.	521 W. 57th St., New York 19, N.Y. (Union Beach, N.J.).
IMC	International Minerals & Chemical Corp-----	5401 Old Orchard Rd., Skokie, Ill. (San Jose, Calif.; Skokie, Ill.; and Niagara Falls, N.Y.).
INP	International Paper Co-----	220 E. 42d St., New York 17, N.Y. (Corinth, N.Y.; and York Haven, Pa.).
ITX	Intex Chemical Corp-----	167 Main Street, Lodi, N.J.
IRI	Ironsides Co-----	270 W. Mound St., Columbus 15, Ohio.
JAM	Jamestown Paint & Varnish Co-----	Jamestown, Pa.
JCC	Jefferson Chemical Co., Inc-----	P.O. Box 303, Houston 1 (Port Neches), Tex.
MER	Jefferson Lake Sulphur Co., Merichem Co. Div.	P.O. Box 9788, Houston 15, Tex.
JEN	Jemison-Wright Corp-----	Box 4187, Station E, Toledo 9, Ohio.
JRG	Andrew Jergens Co-----	2535 Spring Grove Ave., Cincinnati 14, Ohio.
JWL	Jewel Paint & Varnish Co-----	345 N. Western Ave., Chicago 12, Ill.
JNS	S. C. Johnson & Son, Inc-----	1525 Howe St., Racine, Wis.
JOB	Jones-Blair Paint Co., Inc-----	6969 Denton Dr., P.O. Box 35286, Dallas, Tex.
JOD	Jones-Dabney Co-----	1481 S. 11th St., Louisville 8, Ky.
JOR	W. H. & F. Jordan, Jr. Manufacturing Co.	2126 E. Somerset St., Philadelphia 34, Pa.
KAL	Kali Manufacturing Co-----	427 E. Moyer St., Philadelphia 25, Pa.
KLD	Kalide Corp-----	19 South Canal St., Lawrence, Mass.
KF	Kay-Fries Chemicals, Inc-----	180 Madison Ave., New York 16 (West Haverstraw), N.Y.
KEL	Kelly-Pickering Chemical Corp-----	956 Bransten Rd., San Carlos, Calif.
KEN	Kendall Refining Co-----	77 Kendall Ave., Bradford, Pa.
	Kennecott Copper Corp.:	
KCC	Chino Mines Div-----	Hurley, N. Mex.
KCU	Utah Copper Div-----	151 Mineral Square, Salt Lake City 1 (Arthur and Magna), Utah.
KES	Kessler Chemical Co., Inc-----	State Rd. & Cottman Ave., Philadelphia 35, Pa.
KYS	Keysor Chemical Co-----	Box 338, Saugus, Calif.
KCH	Keystone Chemurgic Corp-----	R.D. #2, Bethlehem, Pa.
KCW	Keystone Color Works, Inc-----	151 W. Gay Ave., York, Pa.
KPV	Keystone Paint & Varnish Corp-----	71 Otsego St., Brooklyn 31, N.Y.
KLS	Kilsdonk Chemical Corp-----	101 Canal St., Lock Haven, Pa.
KNG	O. L. King & Co-----	640 Gilman St., Berkeley 10, Calif.
KNP	Knapp Products, Inc-----	180 Hamilton Ave., Lodi, N.J.
KND	Knoedler Chemical Co-----	651 High St., Lancaster, Pa.
KON	H. Kohnstamm & Co., Inc-----	161 Avenue of the Americas, New York 7 (Brooklyn), N.Y.
KLK	Kolker Chemical Corp-----	600 Doremus Ave., Newark 5, N.J.
	Koppers Co., Inc.:	
KPC	Chemicals and Dyestuffs Div-----	Koppers Bldg., 430 7th Ave., Pittsburgh 19 (Lock Haven and Petrolia), Pa.
KPP	Plastics Div-----	Koppers Bldg., 430 7th Ave., Pittsburgh 19, Pa.
KPT	Tar Products Div-----	Koppers Bldg., 430 7th Ave., Pittsburgh 19, Pa. (Woodward, Ala.; Fontana, Calif.; New Haven, Conn.; Chicago, Ill.; Chalmette, La.; Bangor and Portland, Maine; Everett and Westfield, Mass.; Wyandotte, Mich.; St. Paul, Minn.; Kearny and Westfield, N.J.; Buffalo, Rochester, and Utica, N.Y.; Hamilton, Toledo, Warren, and Youngstown, Ohio; Kobuta, Oil City, Swedeland, and Swissvale, Pa.; East Providence, R.I.; Memphis, Tenn.; Houston, Tex.; Arroya and Follansbee, W. Va.; and Carrollville and Milwaukee, Wis.).

TABLE 23.--Synthetic organic chemicals: Directory of manufacturers, 1959--Continued

Code	Name of company	Office address (location of plant given in parentheses if not in same city as office)
KRM	Krumbhaar Chemicals, Inc-----	24 Jacobus Ave., South Kearny, N.J.
KRY	Krystall Chemical Co-----	1301 W. Belden Ave., Chicago 14, Ill.
KYN	Kyanize Paints, Inc-----	2d and Boston Sts., Everett 49, Mass.
LKL	Lakeside Laboratories, Inc-----	1707 E. North Ave., Milwaukee 1, Wis.
LAM	LaMotte Chemical Products Co-----	Chestertown, Md.
LAS	LaSalle Chemical Corp-----	21-23 Merseles St., Jersey City 2, N.J.
LUR	Laurel Soap Manufacturing Co., Inc-----	Thompson & Tioga Sts., Philadelphia 34, Pa.
LEA	Leatex Chemical Co-----	2722 N. Hancock St., Philadelphia 33, Pa.
LEB	Lebanon Chemical Corp-----	P.O. Box 532, Lebanon, Pa.
LEF	Leffingwell Chemical Co-----	P.O. Box 1187, Perry Annex, Whittier, Calif.
LEM	B. L. Lemke & Co., Inc-----	199 Main St., Iodi, N.J.
LEN	Leonard Refineries, Inc-----	East Superior St., Alma (Mt. Pleasant), Mich.
LEV	Lever Brothers Co-----	390 Park Ave., New York 22, N.Y.
LVR	C. Lever Co., Inc-----	Howard and Huntington Sts., Philadelphia 33, Pa.
LVY	Fred'k H. Levey Co., Inc-----	380 Madison Ave., New York 17 (Brooklyn), N.Y.
LEW	Lewis Tar Products Co-----	P.O. Box A, Lyons (McCook), Ill.
LIL	Eli Lilly & Co-----	740 S. Alabama St., Indianapolis 6, Ind.
LON	Charles R. Long, Jr. Co-----	1630 W. Hill St., Louisville 10, Ky.
LUB	Lubrizol Corp-----	Cleveland 17, Ohio.
LUE	George Lueders & Co-----	427 Washington St., New York 13 (Patchogue), N.Y.
MAS	Maas & Waldstein Co-----	2121 McCarter Highway, Newark 4, N.J.
MGR	Magruder Color Co., Inc-----	2385 Richmond Terrace, Staten Island 2, N.Y.
MAL	Mallinckrodt Chemical Works-----	3600 North Second St., St. Louis 7, Mo. (St. Louis, Mo.; and Jersey City, N.J.).
MRB	Marblette Corp-----	37-31 30th St., Long Island City 1, N.Y.
MRD	Marden-Wild Corp-----	500 Columbia St., Somerville 43, Mass.
MRV	Marlowe-Van Loan Corp-----	1511 Byrum St., High Point, N.C.
MRX	Max Marx Color & Chemical Co-----	192 Coit St., Irvington 11, N.J.
MDP	Maryland Plastics Co-----	25 E. Central Ave., Federalsburg (Ridgely), Md.
MEE	Maumee Chemical Co-----	1310 Expressway Dr., Toledo 8, Ohio.
MAY	Otto B. May, Inc-----	52 Amsterdam St., Newark 5, N.J.
MYW	Maywood Chemical Works-----	100 W. Hunter Ave., Maywood, N.J.
MCC	McCloskey Varnish Co-----	7600 State Rd., Philadelphia 36, Pa.
MCW	McWhorter Chemicals, Inc-----	1645 S. Kilbourn Ave., Chicago 23, Ill.
MED	Medical Chemicals Corp-----	4122 W. Grand Ave., Chicago 51, Ill.
MRK	Merck & Co., Inc-----	Lincoln Ave., Rahway, N.J. (Albany, Ga.; Danville, Philadelphia, and West Point, Pa.; and Elkton, Va.).
MJM	M. J. Merkin Paint Co., Inc-----	1441 Broadway, New York 18, N.Y. (Lyndhurst, N.J.).
MTL	Metalsalts Corp-----	200 Wagaraw Rd., Hawthorne, N.J.
MRA	Metro-Atlantic, Inc-----	2072 Smith St., Centerdale 11, R.I.
JMS	J. Meyer & Sons, Inc-----	4321 N. 4th St., Philadelphia 40, Pa.
MCH	Michigan Chemical Corp-----	500 N. Bankson St., St. Louis, Mich. (El Dorado, Ark.).
MTD	Midland Industrial Finishes Co-----	East Water St., Waukegan, Ill.
MLS	Miles Chemical Co-----	N. Centennial St., Zeeland, Mich.
ML	Miles Laboratories, Inc-----	Elkhart, Ind.
MOR	Mineral Oil Refining Co-----	P.O. Drawer C, Dickinson 1, Tex.
MAM	Minnesota Mining & Manufacturing Co-----	900 Bush Ave., St. Paul 6, Minn.
MNP	Minnesota Paints, Inc-----	1101 S. 3d St., Minneapolis 15, Minn. (Fort Wayne, Ind.).
MIR	Miranol Chemical Co., Inc-----	277 Coit St., Irvington 11, N.J.
MSC	Mississippi Chemical Corp-----	P.O. Box 563, Yazoo City, Miss.
MOB	Mobay Chemical Co-----	1815 Washington Rd., Pittsburgh 34, Pa. (New Martinsville, W. Va.).
MOA	Mona Industries, Inc-----	65 E. 23d St., Paterson 17, N.J.
MON	Monsanto Chemical Co-----	800 N. Lindbergh, St. Louis 66, Mo. (Anniston, Ala.; Long Beach and Santa Clara, Calif.; Monsanto, Ill.; Luling, La.; Boston, Mass.; Trenton, Mich.; Kearny, N.J.; Seattle, Wash.; and Nitro, W. Va.).
MTG	Plastics Div-----	812 Monsanto Ave., Springfield, Mass. (Texas City, Tex.).
MTR	Montrose Chemical Co-----	100 Lister Ave., Newark 5, N.J.
MTO	Montrose Chemical Corp. of California--	824 Wilshire Blvd., Los Angeles 17, Calif. (Torrance, Calif.; and Henderson, Nev.).
MR	Benjamin Moore & Co-----	511 Canal St., New York 13, N.Y. (Los Angeles, Calif.; Denver, Colo.; Carteret, N.J.; and Cleveland, Ohio).
MRN	Morningstar Paisley, Inc-----	1770 Canalport Ave., Chicago 16, Ill.
MRT	Morton Chemical Co-----	Ringwood, Ill.
MRW	Morwear Paint Co-----	568 14th St., Oakland 12, Calif.
MOT	Motomeco, Inc-----	89 Terminal Ave., Clark, N.J.
NTB	National Biochemical Co-----	3127 W. Lake St., Chicago 12, Ill.
NTC	National Casein Co-----	601 W. 80th St., Chicago 20, Ill. (Tyler, Tex.).
SHF	National Dairy Products Corp., Sheffield Chemical Co. Div.	Box 630, Norwich, N.Y.
USI	National Distillers & Chemical Corp., U.S. Industrial Chemicals Co. Div.	99 Park Ave., New York 16, N.Y. (New Orleans, La.).
NTL	National Lead Co-----	111 Broadway, New York 6, N.Y. (San Francisco, Calif.; Perth Amboy, N.J.; and Philadelphia, Pa.).

TABLE 23.--Synthetic organic chemicals: Directory of manufacturers, 1959--Continued

Code	Name of company	Office address (location of plant given in parentheses if not in same city as office)	Code
NPC	National Petro-Chemicals Corp-----	99 Park Ave., New York 16, N.Y. (Tuscola, Ill.).	PLP
NPI	National Polychemicals, Inc-----	Eames St., Wilmington, Mass.	PNX
NSP	National Southern Products Corp-----	P.O. Box 390, Tuscaloosa, Ala.	PIL
NSC	National Starch and Chemical Corp-----	750 3d Ave., New York 17, N.Y. (Meredosia, Ill.; and Plainfield, N.J.).	PIT
NES	Nease Chemical Co., Inc-----	P.O. Box 221, State College, Pa. (Fernald, Ohio; and Lock Haven and State College, Pa.).	PCC
NEP	Nepera Chemical Co., Inc-----	Rt. 17 & Averill Ave., Harriman, N.Y.	PPG
NEV	Neville Chemical Co-----	Neville Island, Pittsburgh 25, Pa. (Anaheim, Calif.; and Neville Island, Pa.).	PLS
NYP	New York & Pennsylvania Co., Inc-----	425 Park Ave., New York 22, N.Y. (Johnsonburg, Pa.).	PYL
NIL	Nilok Chemicals, Inc-----	2000 College Ave., Niagara Falls (Lockport), N.Y.	PYR
NON	A. P. Nonweiler Co-----	P.O. Box 1007, Oshkosh, Wis.	PYZ
NOP	Nopco Chemical Co., Inc-----	60 Park Place, Newark 2, N.J. (Richmond, Calif.; Cedartown, Ga.; and Carlstadt, Clifton, Harrison, and North Arlington, N.J.).	PDC
NEO	Norda Essential Oil & Chemical Co., Inc.	601 W. 26th St., New York 1, N.Y. (Boonton, N.J.).	PRT
NW	Northwestern Chemical Co-----	120 N. Aurora St., West Chicago, Ill.	PRE
NOR	Norwich Pharmacal Co-----	17 Eaton Ave., Norwich, N.Y.	PRS
OB	O'Brien Corp-----	2001 W. Washington Ave., South Bend 21, Ind. (Baltimore, Md.; and South Bend, Ind.).	PCS
ODB	Odessa Butadiene Co-----	P.O. Box 1161, El Paso (Odessa), Tex.	PG
ODS	Odessa Styrene Co-----	P.O. Box 1161, El Paso (Odessa), Tex.	PC
OH	Ohio Chemical & Surgical Equipment Co-----	1400 E. Washington Ave., Madison 10, Wis. (Cleveland, Ohio).	PRD
OIL	Oil & Chemical Products, Inc-----	295 Madison Ave., New York 17, N.Y. (Houston, Tex.).	PUB
OLC	Old Colony Tar Co., Inc-----	500 5th Ave., New York 36, N.Y. (Cambridge and Worcester, Mass.).	PSP
OLH	Old Hickory Chemical Co., Inc-----	P.O. Box 1480, Richmond 12, Va. (Old Hickory, Tenn.; and Richmond, Va.).	PRO
OMB	Olin Mathieson Chemical Corp.: Blockson Chemical Co. Div-----	Joliet, Ill.	PRX
OMC	Chemicals Div-----	10 Light St., Baltimore 3, Md. (Huntsville and McIntosh, Ala.; Brandenburg, Ky.; Lake Charles, La.; Niagara Falls and Rochester, N.Y.).	QCP
OMS	E. R. Squibb & Sons Div-----	745 5th Ave., New York 22, N.Y. (New Brunswick, N.J.; and Brooklyn, N.Y.).	QKO
ONX	Onyx Chemical Co-----	190 Warren St., Jersey City 2, N.J. (Jersey City, N.J.; and Rossville, Staten Island, N.Y.).	RSA
OPC	Orbis Products Corp-----	601 W. 26th St., New York 1, N.Y. (Newark, N.J.).	RAB
ORG	Organics, Inc-----	1724 Greenleaf Ave., Chicago 26, Ill.	RET
ORO	Oronite Chemical Co-----	200 Bush St., San Francisco 4, Calif. (Oak Point, La.).	RED
ORT	Ortho Chemical Corp-----	52-20 37th St., Long Island City, N.Y.	TEK
OSB	C. J. Osborn Co-----	1301 W. Blancke St., Linden, N.J.	ROI
OTT	Ottol Oil Co-----	455 Cortlandt St., Belleville 9, N.J.	AKL
PBS	Pabst Brewing Co-----	Merchandise Mart, Chicago 54, Ill. (Peoria, Ill.; and Milwaukee, Wis.).	VAR
PAN	Pan American Petroleum Corp-----	P.O. Box 591, Tulsa 2, Okla. (Ulysses, Kans.; Cotton Valley, La.; and Alvin, Frankel City, Katy, Levelland, Pettus, Sundown, and Sweeney, Tex.).	RIL
PD	Parke-Davis & Co-----	Jos. Campau at the River, Detroit 32, Mich.	REL
PRP	M. W. Parsons-Plymouth, Inc-----	59 Beekman St., New York 39 (Brooklyn), N.Y.	REM
PAT	Patent Chemicals, Inc-----	335 McLean Blvd., Paterson, N.J.	REP
PUL	Paul-Lewis Laboratories, Inc-----	4215 N. Port Washington Ave., Milwaukee 12, Wis.	REZ
PEK	Peck's Products Co-----	610 E. Clarence Ave., St. Louis 15, Mo.	RCD
PCH	Peerless Chemical Co-----	3850 Oakman Blvd., Detroit 4, Mich.	RIC
PCO	Peerless Color Co., Inc-----	521 North Avenue, Plainfield, N.J.	RIK
PEN	S. B. Penick & Co-----	100 Church St., New York, N.Y. (Jersey City, Lyndhurst, Montville, and Newark, N.J.).	RMC
PAS	Pennsalt Chemicals Corp-----	3 Penn Center, Philadelphia 2, Pa. (Calvert City, Ky.; Wyandotte, Mich.; and Houston, Tex.).	RT
PAI	Pennsylvania Industrial Chemical Corp-----	120 State Street, Box 240, Clairton (Chester), Pa.	RTC
PAR	Pennsylvania Refining Co-----	Butler Savings & Trust Bldg., Butler (Karna City), Pa.	RIV
PGU	Perkins Glue Co-----	632 Cannon Ave., Lansdale, Pa. (W. Memphis, Ark.; High Point, N.C.; and Shawano, Wis.).	RB
PER	Perry & Derrick Co-----	2510 Highland Ave., Cincinnati 12, Ohio (Dayton, Ky.).	RBC
PET	Petroleum Chemicals, Inc-----	P.O. Box 6, 821 Gravier St., New Orleans 6 (Lake Charles), La.	ROC
PTT	Petro-Tex Chemical Corp-----	P.O. Box 2584, Houston 1, Tex.	RGC
PFN	Pfanzstiehl Laboratories, Inc-----	104 Lakeview Ave., Waukegan, Ill.	RH
PRM	Pfaudler Permutit, Inc., Permutit Co. Div.	50 West 44th St., New York 36, N.Y. (Birmingham, N.J.).	ROM
PCW	Prister Chemical Works, Inc-----	Ridgefield, N.J.	ROS
PFZ	Chas. Prizer & Co., Inc-----	11 Bartlett St., Brooklyn 6, N.Y.	ROY
PPF	Phelan-Faust Paint Manufacturing Co-----	932 Loughborough Ave., St. Louis 11, Mo.	RUB
PLC	Phillips Chemical Co-----	Bartlesville, Okla. (Borger and Pasadena, Tex.).	RUR
			SWC
			LKY
			SAL
			SLV
			SAN

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TABLE 23.--Synthetic organic chemicals: Directory of manufacturers, 1959--Continued

Code	Name of company	Office address (location of plant given in parentheses if not in same city as office)
PLP	Phillips Petroleum Co-----	Bartlesville, Okla. (Phillips, Tex.).
PNX	Phoenix Oil Co-----	9505 Cassius Ave., Cleveland 5, Ohio.
PIL	Pilot Chemical Co. of California-----	11756 Burke St., Santa Fe Springs, Calif.
PIT	Pitt-Consol Chemical Co-----	191 Doremus Ave., Newark 5, N.J.
PCC	Pittsburgh Coke & Chemical Co-----	2100 Grant Bldg., Pittsburgh 19, Pa.
PPG	Pittsburgh Plate Glass Co-----	1 Gateway Center, Pittsburgh 22, Pa. (Torrance, Calif.; Atlanta, Ga.; Detroit, Mich.; Newark, N.J.; Barberton and Cleveland, Ohio; Springdale, Pa.; Houston, Tex.; New Martinsville, W. Va.; and Milwaukee, Wis.).
PLS	Plastics Engineering Co-----	1607 Geele Ave., Sheboygan, Wis.
PYL	Polychemical Laboratories, Inc-----	490 Hunts Point Ave., New York 59, N.Y.
PYR	Poly Resins, Inc-----	11655 Wicks St., Sun Valley, Calif.
PYZ	Polyrez Co., Inc-----	So. Columbia St. & Railroad, Woodbury, N.J.
PDC	Poughkeepsie Dyestuff Corp-----	77 N. Water St., Poughkeepsie, N.Y.
PRT	Pratt & Lambert, Inc-----	75 Tonawanda St., Buffalo 7, N.Y.
PRE	Premium Chemicals, Inc-----	113 Marine St., Farmingdale, N.Y.
PRS	Presto Plastic Products Co., Inc-----	5410 Avenue U, Brooklyn 34, N.Y.
PCS	Process Chemicals Co-----	8733 S. Dice Rd., Santa Fe Springs, Calif.
PG	Procter & Gamble Manufacturing Co-----	301 E. 6th St., Cincinnati 2, Ohio (Long Beach and Sacramento, Calif.; Chicago, Ill.; Iowa City, Iowa; Kansas City, Kans.; Quincy, Mass.; Baltimore, Md.; St. Louis, Mo.; Cincinnati, Ohio; Staten Island, N.Y.; and Dallas, Tex.).
PC	Proctor Chemical Co., Inc-----	P.O. Box 399, Salisbury, N.C.
PRD	Productol Co-----	417 South Hill St., Los Angeles 13 (Santa Fe Springs), Calif.
PUB	Publicker Industries, Inc-----	1429 Walnut St., Philadelphia 2, Pa.
PSP	Puget Sound Pulp & Timber Co-----	300 Laurel St., Bellingham, Wash.
PRO	Pure Oil Co-----	35 East Wacker Dr., Chicago 1, Ill.
PRX	Purex Corp., Ltd-----	9300 Rayo Avenue, South Gate, Calif.
QCP	Quaker Chemical Products Corp-----	Elm, Lime, and Sandy Sts., Conshohocken, Pa.
QKO	Quaker Oats Co-----	Merchandise Mart Plaza, Chicago 54, Ill. (Cedar Rapids, Iowa; Omaha, Nebr.; and Memphis, Tenn.).
RSA	R. S. A. Corp-----	690 Saw Mill River Rd., Ardsley, N.Y.
RAB	Raybestos-Manhattan, Inc-----	P.O. Box 1021, Bridgeport (Stratford), Conn.
RET	Rayette, Inc., Chemical Div-----	261 E. 5th St., St. Paul 1, Minn.
RED	Red Spot Paint & Varnish Co., Inc-----	110 Main St., Evansville 8, Ind.
TEK	Refined Products Corp-----	624 Schuyler Ave., Lyndhurst, N.J.
RCI	Reichhold Chemicals, Inc-----	525 North Broadway, White Plains, N.Y. (Tuscaloosa, Ala.; Azusa and San Francisco, Calif.; Jacksonville, Fla.; Argo, Ill.; Kansas City, Kans.; Ballardvale, Mass.; Ferndale, Mich.; Charlotte, N.C.; Elizabeth, N.J.; Brooklyn, N.Y.; Hampton, S.C.; Houston, Tex.; and Seattle and Tacoma, Wash.).
AKL	Alkydol Laboratories Div-----	3242 S. 50th Ave., Cicero, Ill.
VAR	Varcum Chemical Corp. Div-----	Niagara Falls, N.Y.
RIL	Reilly Tar & Chemical Corp-----	1615 Merchants Bank Bldg., Indianapolis 4, Ind.
REL	Reliance Varnish Co., Inc-----	4730 Crittenden Dr., Louisville 9, Ky.
REM	Remington Arms Co., Inc-----	939 Barnum Ave., Bridgeport 2, Conn.
REP	Republic Creosoting Co-----	1615 Merchants Bank Bldg., Indianapolis 4, Ind.
REZ	Rezolin, Inc-----	1651 18th St., Santa Monica, Calif.
ROD	Richardson Co-----	27th Ave. and Lake St., Melrose Park, Ill.
RIC	Richfield Oil Corp-----	555 S. Flower St., Los Angeles 17 (Watson), Calif.
RIK	Riker Laboratories, Inc-----	19901 Nordhoff St., Northridge, Calif.
RMC	Rinshed-Mason Co-----	5935 Milford Ave., Detroit 10, Mich. (Anaheim, Calif.).
RT	F. Ritter & Co-----	4001 Goodwin Avenue, Los Angeles 39, Calif.
RTC	Ritter Chemical Co., Inc-----	403 W. Main St., Amsterdam, N.Y.
RIV	Riverdale Chemical Co-----	220 E. 17th St., Chicago Heights, Ill.
RB	Robert & Co., Inc-----	92 Liberty St., New York 6, N.Y. (Newark, N.J.).
RBC	Roberts Chemicals, Inc-----	P.O. Box 446, Nitro, W. Va.
ROC	Rock Hill Printing & Finishing Co-----	Rock Hill, S. C.
RGC	Rogers Corp-----	Rogers (Manchester), Conn.
RH	Rohm & Haas Co-----	222 W. Washington Sq., Philadelphia 5, Pa. (Bristol and Philadelphia, Pa.; Knoxville, Tenn.; and Deer Park, Tex.).
ROM	Roma Chemical Corp-----	900 Passaic Ave., E. Newark, N.J.
ROS	Rosett Chemicals, Inc-----	84 Waydell St., Newark 5, N.J.
ROY	Royce Chemical Co-----	Carlton Ave., Carlton Hill, N.J.
RUB	Rubber Corp. of America-----	New South Rd., Hicksville, N.Y.
RUR	Ruberoid Co-----	500 5th Ave., New York 36, N.Y. (Joliet, Ill.; Baltimore, Md.; and Erie, Pa.).
SWC	S & W Chemical Co., Inc-----	P.O. Box 995, LaPorte, Tex.
LKY	St. Regis Paper Co., Lake States Yeast & Chemical Div.	603 W. Davenport St., Rhinelander, Wis.
SAL	Dr. Salsbury's Laboratories-----	500 Gilbert St., Charles City, Tex.
SIV	Salvo Chemical Corp-----	Rothschild, Wis.
SAN	Sandoz, Inc-----	P.O. Box 357, Fair Lawn, N.J.

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TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1959--Continued

Code	Name of company	Office address (location of plant given in parentheses if not in same city as office)	Co
SCF	Schaefer Varnish Co., Inc-----	15th & Magnolia Sts., Louisville 10, Ky.	SRR
SCN	Schenectady Varnish Co., Inc-----	Congress St. & 9th Ave., Schenectady 1 (Rotterdam Jct.), N.Y.	SUM
SCR	R. P. Scherer Corp-----	9425 Grinnell Ave., Detroit 13, Mich.	
SCH	Schering Corp-----	60 Orange St., Bloomfield (Union), N.J.	SNM
SCO	Scholler Bros., Inc-----	Collins & Westmoreland Sts., Philadelphia 34, Pa.	SNA
FMF	Schuylkill Chemical Co-----	2346 Sedgley Ave., Philadelphia 32, Pa.	SNP
SBR	Schwarz BioResearch, Inc-----	230 Washington St., Mt. Vernon, N.Y.	SNW
SEM	Seamco Chemical Co-----	3 Hanover St., Holyoke, Mass.	
SRL	G. D. Searle & Co-----	P.O. Box 5110, Chicago 80, Ill.	SUN
SED	Seidlitz Paint & Varnish Co-----	18th & Garfield, Kansas City, Mo.	SNT
SHW	Shawinigan Resins Corp-----	644 Monsanto Ave., Springfield 1, Mass. (Trenton, Mich.).	SWT
SHC	Shell Chemical Corp-----	50 W. 50th St., New York 20, N.Y. (Dominguez, Martinez, Pittsburg, Torrance, and Ventura, Calif.; Denver, Colo.; Norco, La.; and Houston, Tex.).	SYR
SHO	Shell Oil Co-----	50 W. 50th St., New York 20, N.Y. (Martinez and Wilmington, Calif.; Roxana, Ill.; Norco, La.; Deer Park, Tex.; and Anacortes, Wash.).	SYC
SHP	Shepherd Chemical Co-----	2803 Highland Ave., Cincinnati 12, Ohio.	SYP
SW	Sherwin-Williams Co-----	101 Prospect Ave. NW., Cleveland 1, Ohio (Chicago, Ill.; Detroit, Mich.; Cleveland and Dayton, Ohio; and Philadelphia and Pittsburgh, Pa.).	SVV
SHL	Shulton, Inc-----	697 Route 46, Clifton, N.J.	CST
SID	George P. Siddall Co., Inc-----	P.O. Box 925, Spartanburg, S.C. (Cranston, R.I.; and Spartanburg, S.C.).	TAR
SIM	Simpson Redwood Co-----	2301 N. Columbia Blvd., Portland 17, Oreg.	TAY
SIN	Sinclair Refining Co-----	600 5th Ave., New York 20, N.Y. (E. Chicago, Ind.; Sand Springs, Okla.; Marcus Hook, Pa.; and Houston, Tex.).	TN
SIP	James B. Sipe & Co-----	Box 8010, Pittsburgh 10 (Bridgeville), Pa.	TNP
SK	Smith, Kline & French Laboratories-----	1500 Spring Garden St., Philadelphia 1, Pa.	TXC
SM	Socony Mobil Oil Co., Inc-----	612 S. Flower St., Los Angeles 54, Calif.; and Beaumont, Tex.	TX
SPP	Socony Paint Products Co-----	Metuchen, N.J.	TXB
SOH	Sohio Chemical Co-----	550A Guildhall Bldg., Cleveland 15 (Lima), Ohio.	TUS
SOL	Solar Chemical Corp-----	29 Fuller St., Leominster, Mass.	TKL
SLC	Soluol Chemical Co., Inc-----	Green Hill & Market Sts., W. Warwick, R.I.	TMC
SVT	Solvent Chemical Co., Inc-----	341 Commercial St., Malden 48, Mass.	TMH
SON	L. Sonneborn Sons, Inc-----	300 Park Ave. S., New York 10, N.Y.	TRC
SNC	Sonoco Products Co-----	Hartsville, S. C.	TV
SOR	Southern Resin Glue Co-----	P.O. Box 352, Fayetteville (Vander), N.C.	ACT
SOS	Southern Sizing Co-----	3056 SE. Main St., East Point, Ga.	TRF
SPL	Spaulding Fibre Co., Inc-----	310 Wheeler St., Tonawanda, N.Y.	TGI
SPR	Specialty Resins Co-----	2801 Lynwood Rd., Lynwood, Calif.	TRJ
SPC	Specific Pharmaceuticals, Inc-----	331 4th Ave., New York 10, N.Y. (Bayonne, N.J.).	TBF
SPN	Spencer Chemical Co-----	610 Dwight Bldg., Kansas City 5, Mo. (Calumet City, Ill.; Pittsburg, Kans.; Henderson, Ky.; Vicksburg, Miss.; and Orange, Tex.).	JTC
STA	A. E. Staley Manufacturing Co-----	N. 22d St., Box 151, Decatur, Ill.	UBS
SAC	Standard Agricultural Chemicals, Inc-----	1301 Jefferson St., Hoboken, N.J.	UHI
CLN	Standard Brands, Inc., Clinton Corn Processing Co. Div.	Clinton, Iowa.	UNC
SCP	Standard Chemical Products, Inc-----	1301 Jefferson St., Hoboken, N.J.	UCI
SCC	Standard Chlorine Chemical Co., Inc-----	115 Jacobus Ave., S. Kearny, N.J.	UCS
STD	Standard Dyestuff Corp-----	5th St. & 5th Ave., Paterson 4, N.J.	UOK
STN	Standard Naphthalene Products Co., Inc-----	115 Jacobus Ave., S. Kearny, N.J.	
SOC	Standard Oil Co. of California-----	225 Bush St., San Francisco 20 (Bakersfield, El Segundo, and Richmond), Calif.	UNO
SOI	Standard Oil Co. of Indiana-----	910 S. Michigan Ave., Chicago 80, Ill. (Wood River, Ill.; Whiting, Ind.; Neodesha, Kans.; and Sugar Creek, Mo.).	USI
STT	Standard-Toch Chemicals, Inc-----	2600 Richmond Terrace, Staten Island 3, N.Y.	UP
SUC	Standard Ultramarine & Color Co-----	P.O. Box 2166, Huntington 18, W. Va.	US
STG	Wm. J. Stange Co-----	342 N. Western Ave., Chicago 12, Ill.	US
STS	Stansbury Chemical Co., Inc-----	1929 Aurora Ave., Seattle 9, Wash.	
SF	Stauffer Chemical Co-----	380 Madison Ave., New York 17, N.Y. (LaMoyné, Ala.; Richmond and Torrance, Calif.; Louisville, Ky.; Henderson, Nev.; Brooklyn, Chauncey, and Niagara Falls, N.Y.; Perry, Ohio; Chester, Pa.; Lowland, Tenn.; and Bentonville and Roanoke, Va.).	UD
SFA	Anderson Chemical Co. Div-----	Weston, Mich.	UP
CHO	Calbio Chemicals, Inc. Div-----	380 Madison Ave., New York 17, N.Y. (Perry, Ohio).	UW
VIC	Victor Chemical Works Div-----	155 N. Wacker Dr., Chicago 6, Ill.	UP
SH	Stein, Hall & Co., Inc-----	285 Madison Ave., New York 17, N.Y. (Charlotte, N.C.).	VA
STP	Stepan Chemical Co-----	427 W. Randolph St., Chicago 6, Ill.	VN
SDG	Sterling Drug, Inc.:		VE
SDH	Glenbrook Laboratories Div-----	1450 Broadway, New York 18, N.Y. (Trenton, N.J.)	VI
SDW	Hilton-Davis Chemical Co. Div-----	2235 Langdon Farm Rd., Cincinnati 13, Ohio.	VP
	Winthrop Laboratories Div-----	1450 Broadway, New York 18 (Rensselaer), N.Y.	VP

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TABLE 23.--Synthetic organic chemicals: Directory of manufacturers, 1959--Continued

Code	Name of company	Office address (location of plant given in parentheses if not in same city as office)
SRR	Fred'k A. Stresen-Reuter, Inc-----	400 W. Roosevelt Ave., Bensenville, Ill.
SUM	Summit Chemical Products Corp-----	11 William St., Belleville 9, N.J.
	Sun Chemical Corp.:	
SNM	Ampruf Paint Co. Div-----	416 Boulevard, E. Paterson, N.J.
SNA	Ansbacher-Siegle Corp. Div-----	92 Chestnut Ave., Rosebank, Staten Island 5, N.Y.
SNP	Pigment Div-----	750 3d Ave., New York 17, N.Y. (Harrison, N.J.).
SNW	Warwick Chemical Co. Div-----	1040 44th Ave., Long Island City, N.Y. (Wood River Jct., R.I., and Rockhill, S.C.).
SUN	Sun Oil Co-----	1608 Walnut St., Philadelphia 3 (Marcus Hook), Pa.
SNT	Suntide Refining Co-----	P.O. Box 658, Corpus Christi (Viola), Tex.
SWT	Swift & Co-----	4115 S. Packers Ave., Chicago 9, Ill.
SYR	Synco Resins, Inc-----	Henry St., Bethel, Conn.
SYC	Synthetic Chemicals, Inc-----	335 McLean Blvd., Paterson, N.J.
SYP	Synthetic Products Co-----	1636 Wayside Rd., Cleveland 20, Ohio.
SYV	Synvar Corp-----	P.O. Box 1752, 726 King St., Wilmington 99, Del.
CST	Charles S. Tanner Co-----	250 S. Water St., Providence 3, R.I.
TAR	Tar Distilling Co., Inc-----	500 5th Ave., New York 36, N.Y. (Cleveland, Ohio).
TAY	Taylor Fibre Co-----	Norristown (Betzwood), Pa.
TN	Tennessee Corp-----	61 Broadway, New York 6, N.Y. (Copperhill, Tenn.).
TNP	Tennessee Products & Chemical Corp----	2611 West End Ave., Nashville 5 (Chattanooga), Tenn.
TXC	Tex Chemical Co-----	20-21 Wagaraw Rd., Fair Lawn, N.J.
TX	Texaco, Inc-----	135 E. 42d St., New York 17, N.Y. (Port Arthur, Tex.).
TXB	Texas Butadiene & Chemical Corp-----	440 Bank of the Southwest Bldg., Houston (Channelview), Tex.
TUS	Texas-U.S. Chemical Co-----	P.O. Box 667, Port Neches, Tex.
TKL	Thiokol Chemical Corp-----	P.O. Box 27, Bristol, Pa. (Moss Point, Miss.; and Trenton, N.J.).
TMS	Thomasset Colors, Inc-----	120 Lister Ave., Newark 5, N.J.
THC	Thompson Chemical Co-----	90 Mendor Ave., Pawtucket, R.I. (Hebronville, Mass.; and Pawtucket, R.I.).
TMC	Thompson Chemicals Corp-----	3028 Locust St., St. Louis 3, Mo.
TMH	Thompson-Hayward Chemical Co-----	2915 Southwest Blvd., Kansas City 8, Mo.
TRC	Toms River-Cincinnati Chemical Corp----	P.O. Box 71, Toms River, N.J.
TV	Tousey Varnish Co-----	520 W. 25th St., Chicago 16, Ill.
ACT	Arthur C. Trask Co-----	327 S. LaSalle St., Chicago 4, Ill.
TRP	Treprow Chemical Co-----	59 Camden St., Paterson, N.J.
TGL	Triangle Chemical Co-----	206 Lower Elm St., Macon, Ga.
TRJ	Trojan Powder Co-----	17 N. 7th St., Allentown (Seiple), Pa.
TEK	Trubek Laboratories-----	State Highway 17, E. Rutherford, N.J.
JTC	Joseph Turner & Co-----	P.O. Box 88, Pleasantview Terrace, Ridgefield, N.J.
UBS	U B S Chemical Corp-----	491 Main St., Cambridge, Mass.
UHL	Paul Uhlich & Co., Inc-----	90 West St., New York 6, N.Y.
UNG	Ungerer & Co-----	161 Avenue of the Americas, New York 13 (Totowa), N.Y.
	Union Carbide Corp.:	
UCC	Union Carbide Chemicals Co. Div-----	30 E. 42d St., New York 17, N.Y. (Torrance, Calif.; Whiting, Ind.; Niagara Falls, N.Y.; Port Lavaca and Texas City, Tex.; and Institute and S. Charleston, W. Va.).
UCP	Union Carbide Plastics Co. Div-----	30 E. 42d St., New York 17, N.Y. (Ottawa, Ill.; Wyandotte, Mich.; Bound Brook, N.J.; and Marietta, Ohio).
UCS	Silicones Div-----	30 E. 42d St., New York 17, N.Y. (Sistersville, W. Va.).
UOC	Union Oil Co. of California-----	461 S. Boylston St., Los Angeles 17, Calif. (Contra Costa County, Los Angeles, San Luis Obispo County, and Santa Barbara County, Calif.; Glacier County, Mont.; and Snohomish County, Wash.).
UNC	United Cork Companies-----	Central Ave., Kearny (Jamesburg), N.J.
URC	United Rubber & Chemical Co-----	P.O. Box 149, Baytown, Tex.
USB	U.S. Borax Research Corp-----	630 Shatto Pl., Los Angeles 5 (Boron), Calif.
USO	U.S. Oil Co-----	P.O. Box 1345, Providence, R.I.
UPF	United States Pipe & Foundry Co-----	3300 1st Ave. N., Birmingham 2, Ala.
USP	U.S. Plastics Products Corp-----	Lake & Whitman Aves., Metuchen, N.J.
USR	United States Rubber Co., Naugatuck Chemical Div.	1230 Avenue of the Americas, New York 20, N.Y. (Naugatuck, Conn.).
UDI	Universal Detergents, Inc. and Petrochemicals Co.	1825 E. Spring St., Long Beach 6, Calif.
UPM	Universal Oil Products Co., Universal Polychem Manufacturing Div.	30 Algonquin Rd., Des Plaines (McCook), Ill.
UWS	Universal Western Chemical Corp-----	12800 E. Imperial Hwy., P.O. Box 487, Norwalk, Calif.
UPJ	Upjohn Co-----	301 Henrietta St., Kalamazoo 99, Mich.
VAL	Valchem-----	1407 Broadway, New York 18, N.Y. (Langley, S.C.).
VNC	Vanderbilt Chemical Corp-----	230 Park Ave., New York 17, N.Y. (Bethel, Conn.).
VND	Van Dyk & Co., Inc-----	11 William St., Belleville 9, N.J.
VEL	Velsicol Chemical Corp-----	330 E. Grand Ave., Chicago 11, Ill. (Marshall, Ill.; and Memphis, Tenn.).
VLV	Verley Chemical Co., Inc-----	200 Pulaski St., Newark 5, N.J.
VPC	Verona-Pharma Chemical Corp-----	Iorio Ct., Union (Bayonne and Newark), N.J.
VPT	Vickers Petroleum Co., Inc-----	P.O. Box 2240, Wichita (Potwin), Kans.

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TABLE 23.--Synthetic organic chemicals: Directory of manufacturers, 1959--Continued

Code	Name of company	Office address (location of plant given in parentheses if not in same city as office)
VIN	Vineland Chemical Co-----	W. Wheat Rd., Vineland, N.J.
VC	Virginia-Carolina Chemical Corp-----	401 E. Main St., Richmond 8, Va. (Charleston, S.C.).
VIS	Visco Products Co-----	1020 Holcombe Blvd., Houston 6 (Sugar Land), Tex.
VTM	Vitamins, Inc-----	809 W. 58th St., Chicago 21, Ill.
VTV	Vita-Var Corp-----	10 Commerce Court, Newark 2, N.J.
FRO	Vulcan Materials Co., Frontier Chemical Co. Div.	P.O. Box 545, Wichita, Kans.
WTM	Wallace & Tiernan, Inc-----	25 Main St., Belleville 9, N.J..
WTH	Harchem Div-----	P.O. Box 178, Newark, N.J. (Dover, Ohio).
WTL	Lucidol Div-----	1740 Military Rd., Buffalo 5 (Genesee and Tonawanda), N.Y.
WRN	Warner-Jenkinson Manufacturing Co-----	2526 Baldwin St., St. Louis 6, Mo.
WPC	Warren Paint and Color Co-----	700 Wedgewood Ave., Nashville 4, Tenn.
WAS	T. F. Washburn Co-----	2244 Elston Ave., Chicago 14, Ill.
WAT	Watertown Manufacturing Co-----	127 Echo Lake Rd., Watertown, Conn.
WEB	R. D. Webb & Co., Inc-----	Stimpson Ave. at Stiles St., Linden, N.J.
WER	Werner Drug & Chemical Co-----	759 Beechwood Ave., Cincinnati 32, Ohio.
WDC	Western Dry Color Co-----	600 W. 52d St., Chicago 9, Ill.
EW	Westinghouse Electric Corp-----	P.O. Box 146, Pittsburgh 30, Pa.
WST	Westville Laboratories, Inc-----	Wheeler Rd., Monroe, Conn.
WVA	West Virginia Pulp and Paper Co., Polychemicals Div.	Charleston, S.C.
WEV	Geo. D. Wetherill Varnish Co-----	Haddon Ave. & White Horse Pike, Camden 3, N.J.
WRS	Wheeler, Reynolds & Stauffer-----	636 California St., San Francisco 8 (Richmond), Calif.
WBG	White & Bagley Co-----	100 Foster St., Worcester 8, Mass.
WHI	White & Hodges, Inc-----	576 Lawrence St., Lowell, Mass.
WHW	Whittemore-Wright Co., Inc-----	62 Alford St., Boston 29, Mass.
WIC	Wica Co., Inc-----	P.O. Box 506, Charlotte 1, N.C.
WLM	Wilmot & Cassidy, Inc-----	108-112 Provost St., Brooklyn 22, N.Y.
WIL	Wilson & Co., Inc., Wilson Laboratories Div.	4221 S. Western Ave., Chicago 9, Ill.
WOC	Wilson Organic Chemicals, Inc-----	P.O. Box 452, Sayreville, N.J.
WTC	Witco Chemical Co., Inc-----	122 E. 42d St., New York 17, N.Y.
WTU	Ultra Chemical Works, Inc. Div-----	2 Wood St., Paterson 6, N.J.
WTT	John H. Witte & Sons, Resin Div-----	Oak St. & Bluff Rd., Burlington, Iowa.
WAW	W. A. Wood Co-----	108 Spring St., Everett 49, Mass.
WON	Woonsocket Color & Chemical Co-----	179 Sonny-side Ave., Woonsocket, R.I.
WYN	Wyandotte Chemicals Corp-----	1609 Biddle Ave., Wyandotte, Mich. (Geismar, La.; and Wyandotte, Mich.).
YAW	Young Aniline Works, Inc-----	2731 Boston St., Baltimore 24, Md.

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TABLE 21B.--Pesticides and other organic agricultural chemicals for which U.S. production or sales were reported, identified by manufacturer, 1960--Continued

Chemical	Manufacturers' identification codes (according to list in table 23)
PESTICIDES AND OTHER ORGANIC AGRICULTURAL CHEMICALS, CYCLIC--Continued	
Insecticides--Continued	
Chlorinated insecticides--Continued	
Hexachlorocyclohexane (Benzene hexachloride)-----	ACG, DA, FRO, HK, PFG, SF.
Lindane-----	HK.
Toxaphene (Chlorinated camphene)-----	HPC.
1,1,1-Trichloro-2,2-bis(p-chlorophenyl)ethane (DDT)----	ACG, DA, GGY, LEB, MTO, OMC.
1,1,1-Trichloro-2,2-bis(p-methoxyphenyl)ethane (Methoxychlor)-----	DUP.
Cyclohexyl-4,6-dinitrophenol-----	DOW.
O,O-Diethyl O-(3-chloro-4-methylumbelliferone) phosphorothioate-----	CHG.
O,O-Diethyl O-(2-isopropyl-4-methyl-6-pyrimidinyl) phosphorothioate-----	GGY.
O,O-Diethyl O-(2-pyrazinyl) phosphorothioate-----	ACY.
O,O-Diethyltoluamide-----	CWL, HPC.
O,O-Dimethyl O-(p-nitrophenyl) phosphorothioate (Methyl parathion)-----	MON, SHC, VEL, VIC.
O,O-Dimethyl S-(4-oxo-1,2,3-benzotriazin-3(4H)-ylmethyl) phosphorodithioate-----	CHG.
Ethyl O-(p-nitrophenyl)benzene phosphorothioate (ZPN)-----	VIC.
Epithyl methylcarbamate-----	UCC.
Parathion (O,O-Dimethyl O-(p-nitrophenyl) phosphorothioate)	ACY, AMP, MON, VEL.
Phosmit (Isobornyl thiocyanatoacetate)-----	BKC, HPC.
Fungicides:	
2-Isovaleryl-1,3-indandione-----	INC.
2-Isovaleryl-1,3-indandione, calcium salt-----	MOT.
2-Pivaloyl-1,3-indandione-----	MOT, PIC.
Warfarin (3-(Acetylbenzyl)-4-hydroxycoumarin)-----	ABB, PEN.
PESTICIDES AND OTHER ORGANIC AGRICULTURAL CHEMICALS, ACYCLIC	
Fungicides:	
Bis-1,4-bromoacetoxybutene-2-----	VIN.
Cadmium succinate-----	MAL.
Calcium undecenoate (Calcium hendecenoate)-----	WIM.
Dimethyldithiocarbamic acid, ferric salt (Parbam)-----	DUP, RBC, WRC.
Dimethyldithiocarbamic acid, zinc salt (Ziram)-----	ALC, DUP, GYR, RBC, USR, WRC, x.
Disodium cyanodithioimidocarbonate-----	BKM.
Ethylene bis(dithiocarbamic acid), diammonium salt-----	RBC.
Ethylene bis(dithiocarbamic acid), disodium salt (Nabam)-----	CIS, DUP, RBC, RH.
Ethylene bis(dithiocarbamic acid), manganese salt (Mansate)-----	DUP, RH.
Ethylene bis(dithiocarbamic acid), zinc salt (Zineb)-----	CIS, DUP, RH.
3-Ethyl-(mercurithio)-1,2-propanediol-----	DUP.
Ethylmercury acetate-----	DUP, MTL.
Ethylmercury chloride-----	DUP, MTL.
Ethylmercury phosphate-----	DUP.
Hydroxyethylmercury acetate-----	WRC.
2-Methoxyethylmercury acetate-----	SCI, WRC.
Methylmercury nitrile-----	WRC.
Zinc undecenoate (Zinc hendecenoate)-----	WIM.
Cametocides: α,β -Dichloroisobutyric acid, sodium salt-----	x.

Directory of Manufacturers

The Directory of Manufacturers lists the companies that report their production of synthetic organic chemicals to the U.S. Tariff Commission. The name of each manufacturer is preceded by an alphabetical identification symbol. These identification symbols consist of not more than three capital letters, and usually bear a relation to the company name. In most instances the assigned symbols were approved by the companies they identify.

For 1960, the Directory of Manufacturers lists 713 primary manufacturers (see table 23). Some of the companies that report production of synthetic organic chemicals consume their entire output in further manufacturing.

The Directory of Manufacturers lists the reporting companies in two ways: Section 1 lists them in alphabetical order by identification symbols. Section 2 lists the reporting companies in alphabetical order by company name, and gives the corresponding identification symbol and the company address.

TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1960

SECTION 1. ALPHABETICAL DIRECTORY BY CODE

[Names of synthetic organic chemical manufacturers that reported production or sales to the U.S. Tariff Commission for 1960 are listed below in the order of their identification codes as used in tables in pt. III. Sec. 2 of this table lists these manufacturers alphabetically and gives their office address]

Code	Name of company	Code	Name of company
AAC	American Alcolac Corp.	ARC	Armour & Co., Armour Industrial Chemical Co. Div.
AAE	American Aniline & Extract Co., Inc.	ARG	Argus Chemical Corp.
ABB	Abbott Laboratories	ARK	Armstrong Cork Co.
ABR	Andrew Brown Co.	ARO	Arco Co.
ABS	American Brake Shoe Co., American Brakeblok Div.	ARP	Armour & Co., Armour Pharmaceutical Co. Div.
ACC	Amoco Chemicals Corp.	ASH	Ashland Oil & Refining Co.
ACG	Allied Chemical Corp., General Chemical Div.	ASL	Ansul Chemical Co.
ACN	Allied Chemical Corp., Nitrogen Div.	AST	Astra Pharmaceutical Products, Inc.
ACO	Acralite Co., Inc., Acco Polymers Div.	ASY	American Synthetic Rubber Corp.
ACP	Allied Chemical Corp., Plastics Div.	ATL	Atlantic Chemical Corp., Macromol Div.
ACR	Acme Resin Corp.	ATR	Atlantic Refining Co.
ACS	Allied Chemical Corp., Solvay Process Div.	AUG	Augusta Chemical Co.
ACT	Arthur C. Trask Co.	AV	American Viscose Corp.
ACY	American Cyanamid Co.	AVS	AviSun Corp.
ADC	Ad-Co Color Corp.		
ADM	Archer-Daniels-Midland Co.	BAC	Baker Castor Oil Co.
AHC	Arnold, Hoffman & Co., Inc.	BAL	Baltimore Paint & Chemical Corp.
AIR	Air Reduction Co., Inc., Air Reduction Chemical Co. Div.	BAT	Bates Chemical Co., Inc.
AKL	Reichhold Chemicals, Inc., Alkydol Laboratories Div.	BAX	Baxter Laboratories, Inc.
ALB	Ames Laboratories, Inc.	BCI	Belding Corticelli Industries
ALC	Alco Oil & Chemical Corp.	BCN	Beech-Nut Life Savers, Inc.
ALL	Alliance Color & Chemical Co.	BCO	Blane Corp.
ALT	Crompton & Knowles Corp., Althouse Chemical Co. Div.	BEN	Bennett's
ALX	Alox Corp.	BRG	B. F. Goodrich Co., B. F. Goodrich Chemical Co. Div.
AMB	American Bio-Synthetics Corp.	BGC	Balfour-Guthrie & Co., Ltd., Chemical Div.
AMC	Amchem Products, Inc.	BIF	Bioferm Corp.
AME	American Chemical Corp.	BIS	Bios Laboratories, Inc.
AMF	American Marietta Co., Ferbert-Schorndorfer Co. Div.	BKC	J. T. Baker Chemical Co.
AMK	American Alkyd Industries	BKL	Berkeley Chemical Corp.
AML	Amalgamated Chemical Corp.	BKM	Buckman Laboratories, Inc.
AMO	American Oil Co. (Texas)	BKS	Berkshire Color & Chemical Co.
AMP	American Potash & Chemical Corp.	BKT	J. T. Baker Chemical Co., Taylor Chemical Div.
AMR	American Marietta Co., Adhesive, Resin & Chemical Div.	BL	Belle Chemical Co., Inc.
AMS	American Marietta Co., Ridgway Color & Chemical Co. Div.	BLN	Brooklyn Color Works, Inc.
AMZ	American Maize Products Co.	BME	Bendix Aviation Corp., Marshall-Eclipse Div.
APC	Appleton Coated Paper Co.	BOR	Borden Chemical Co.
APD	Atlas Chemical Industries, Inc.	BOY	Walter N. Boysen Co.
APR	Atlas Processing Co.	BPC	Benzol Products Co.
APV	Armstrong Paint & Varnish Works, Inc.	BR	Brown Co.
APX	Apex Chemical Co., Inc.	BRD	Bird & Son, Inc., Floor Covering Div.
ARA	Arapahoe Chemicals, Inc.	BRR	Brown Co., Resi-Chem Div.
		BRS	Bristol-Meyers Co., Bristol Laboratories Div.
		BRU	M. A. Bruder & Sons, Inc.
		BRY	Bryant Chemical Corp.
		BSC	Burkart-Schier Chemical Co.
		BUC	Blackman-Uhler Chemical Co.
		BUK	Buckeye Cellulose Corp.
		BUR	Burroughs Wellcome & Co. (U.S.A.), Inc.
		BZ	Bzura, Inc.

TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1960--Continued

	Name of company	Code	Name of company
CAJ	Cadet Chemical Corp.	DA	Diamond Alkali Co.
CAL	Callery Chemical Co.	DAN	Dan River Mills, Inc.
CAP	Capital Plastics, Inc.	DAV	H. B. Davis Co.
CAT	Catalin Corp. of America	DCC	Dow Corning Corp.
CAU	Calcasieu Chemical Corp.	DCI	Delaware Chemicals, Inc.
CCB	Coos-Bay Timber Co.	DEC	Deeey Products Co.
CCP	Ciba Pharmaceutical Products, Inc.	DEP	DePaul Chemical Co., Inc.
CCS	Samuel Cabot, Inc.	DEX	Dexter Chemical Corp.
CCV	Crosby Chemicals, Inc.	DGS	Douglas Chemical Corp.
CCW	Collway Colors, Inc.	DLH	Delhi-Taylor Oil Corp.
CCX	Carlisle Chemical Works, Inc., Advance Solvents & Chemical Div.	DLI	Dawe's Laboratories, Inc.
CCY	Chase Chemical Corp.	DLM	Delmar Chemical Co., Inc.
CCZ	Clinton Chemical Co.	DLT	Delta Chemical Works, Inc.
CCO	Chemico, Inc.	DOD	Donald A. Dodd
CCP	Crown Central Petroleum Corp.	DOM	Dominion Products, Inc.
CCS	Carlisle Chemical Works, Inc.	DOW	Dow Chemical Co.
CCV	Continental-Diamond Fibre Corp.	DRG	Drug Processors, Inc.
CCW	Concord-Danan Co.	DRW	E. F. Drew & Co., Inc.
CCX	Celanese Corp. of America:	DSC	Dye Specialties, Inc.
CCY	Celanese Chemical Co. Div.	DSO	DeSoto Chemical Coatings, Inc.
CCZ	Celanese Polymer Co. Div.	DUN	Frank W. Dunne Co.
CCO	Central Paint & Varnish Works, Inc.	DUP	E. I. duPont de Nemours & Co., Inc.
CCP	Cooperative Farm Chemicals Association	DVC	Dover Chemical Co.
CCS	Carnegies Fine Chemicals of Kearny	DYK	Dykem Co.
CCV	Chemfax, Inc.	EAK	J. S. & W. R. Eakins, Inc.
CCW	Chemagro Corp.	EDC	Edcan Laboratories
CCX	Stauffer Chemical Co., Calhio Chemicals Div.	EDY	Eddystone Manufacturing Co.
CCY	Colloids, Inc.	EFH	E. F. Houghton & Co.
CCZ	California Ink Co., Inc.	EK	Eastman Kodak Co.
CCO	Chemical Insecticide Corp.	EKT	Eastman Kodak Co., Tennessee Eastman Co. Div.
CCP	City Chemical Corp.	EKK	Eastman Kodak Co., Texas Eastman Co. Div.
CCS	Chemlek Laboratories, Inc.	EMK	Emkay Chemical Co.
CCV	Columbia Organic Chemicals, Inc.	EMR	Emery Industries, Inc.
CCW	Standard Brands, Inc., Clinton Corn Processing Co. Div.	EN	Endo Laboratories, Inc.
CCX	Clover Chemical Co.	ENJ	Enjay Chemical Co.
CCY	W. A. Cleary Corp.	EPC	Epoxylite Corp.
CCZ	Carpenter-Morton Co.	ERD	Erdmann Chemical Co., Inc.
CCO	Comcolloid, Inc.	ESC	Escambia Chemical Corp.
CCP	Chemical Manufacturing Co., Inc.	ETD	Ethyl-Dow Chemical Co.
CCS	Continental Oil Co.	EVM	Everledge Manufacturing, Inc.
CCV	Cokerille Chemicals, Inc.	EVN	Evans Chemetics, Inc.
CCW	Air Reduction Co., Inc., Colton Chemical Co. Div.	EW	Westinghouse Electric Corp.
CCX	Commercial Solvents Corp.	FAR	Farnow, Inc.
CCY	Concord Chemical Co., Inc.	FB	Fritzsche Bros., Inc.
CCZ	Coopers Creek Chemical Corp.	FBC	Fiber Chemical Corp.
CCO	Commercial Resins Corp.	FBS	Fries Bros., Inc.
CCP	Colgate-Palmolive Co.	FCD	France, Campbell & Darling, Inc.
CCS	Childs Pulp Colors, Inc.	FCL	Federal Color Laboratories, Inc.
CCV	Chemical Products Corp.	FCP	J. P. Frank Chemical & Plastics Corp.
CCW	Reliance Varnish Co., Inc., Coast Paint & Lacquer Co. Div.	FEL	Felton Chemical Co., Inc.
CCX	Chemical Process Co.	FER	Ferro Corp., Ferro Chemical Div.
CCY	Consolidated Paint Co.	FG	Foster Grant Co., Inc.
CCZ	Cook Paint & Varnish Co.	FH	Foster-Heaton Co.
CCO	Copolymer Rubber & Chemical Corp.	FIN	Fine Organics, Inc.
CCP	Crown Chemical Corp.	FIR	Firestone Tire & Rubber Co., Firestone Plastics Co. Div.
CCS	Corn Products Co.	FLA	Florida Chemical Co., Inc.
CCV	Crownoil Chemical Co., Inc.	FLH	H. B. Fuller Co.
CCW	Carus Chemical Co., Inc.	FLO	Florasynth Laboratories, Inc.
CCX	Crown Tar & Chemical Works, Inc.	FLW	W. P. Fuller & Co.
CCY	Cary Chemicals, Inc.	FMB	Food Machinery & Chemical Corp., Becco Chemical Div.
CCZ	Crown Zellerbach Corp., Chemical Products Div.	FMF	Schuyllkill Chemical Co.
CCO	Chemstrand Corp.	FMP	Food Machinery & Chemical Corp., Chemicals & Plastics Div.
CCP	Cosden Petroleum Corp.	FMT	Fairmount Chemical Co., Inc.
CCS	Cutter Laboratories	FMW	Food Machinery & Chemical Corp., Chemical Div.
CCV	Collett-Week Corp.	FCM	Formica Corp., Subsidiary of American Cyanamid Co.
CCW	Cowles Chemical Co.	FOR	Foremost Food & Chemical Co., El Dorado Div.
CCX	Carwin Co.	FPI	Furane Plastics, Inc.
CCY	Consolidated Water Power & Paper Co.	FRE	Freeman Chemical Corp.

TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1960--Continued

SECTION 2. ALPHABETICAL DIRECTORY BY COMPANY

[Names of synthetic organic chemical manufacturers that reported production or sales to the U.S. Tariff Commission for 1960 are listed below alphabetically, together with their identification codes as used in tables in pt. III. Sec. 1 of this table lists these manufacturers in the order of their identification codes]

Code	Name of company	Office address
ABB	Abbott Laboratories-----	14th St. and Sheridan Rd., North Chicago, Ill.
ACR	Acme Resin Corp-----	1401 Circle Ave., Forest Park, Ill.
ACO	Acralite Co., Inc., Acco Polymers Div--	59 Kent St., Brooklyn 22, N.Y.
ADC	Ad-Co Color Corp-----	66 Lister Ave., Newark 5, N.J.
	Air Reduction Co., Inc.:	
AIR	Air Reduction Chemical Co. Div-----	150 E. 42d St., New York 17, N.Y.
COL	Colton Chemical Co. Div-----	1747 Chester Ave., Cleveland 14, Ohio.
ALC	Alco Oil & Chemical Corp-----	Trenton Ave. and William St., Philadelphia 34, Pa.
ALL	Alliance Color & Chemical Co-----	33 Avenue P, Newark 5, N.J.
	Allied Chemical Corp.:	
ACG	General Chemical Div-----	40 Rector St., New York 6, N.Y.
NAC	National Aniline Div-----	40 Rector St., New York 6, N.Y.
HAR	Harmon Color Works-----	40 Rector St., New York 6, N.Y.
ACN	Nitrogen Div-----	40 Rector St., New York 6, N.Y.
ACP	Plastics Div-----	40 Rector St., New York 6, N.Y.
ACS	Solvay Process Div-----	P.O. Box 271, Syracuse 1, N.Y.
ALX	Alox Corp-----	3943 Buffalo Ave., Niagara Falls, N.Y.
AML	Amalgamated Chemical Corp-----	Ontario and Rorer Sts., Philadelphia 34, Pa.
AMC	Amchem Products, Inc-----	Brookside Ave., Ambler, Pa.
AAC	American Alcolac Corp-----	3440 Fairfield Rd., Baltimore 26, Md.
AMK	American Alkyd Industries-----	Broad and 14th Sts., Carlstadt, N.J.
AAE	American Aniline & Extract Co., Inc----	Venango and F Sts., Philadelphia 34, Pa.
AMB	American Bio-Synthetics Corp-----	710 W. National Ave., Milwaukee 4, Wis.
ABS	American Brake Shoe Co., American Brakeblok Div.	900 W. Maple Rd., Troy, Mich.
MAR	American Can Co., Marathon Div-----	Menasha, Wis.
AME	American Chemical Corp-----	2112 E. 223d St., Long Beach 10, Calif.
ACY	American Cyanamid Co-----	30 Rockefeller Plaza, New York 20, N.Y.
NYC	American Dyewood Co., New York Color & Chemical Co., Inc. Div.	374 Main St., Belleville 9, N.J.
WYT	American Home Products Corp., Wyeth Laboratories, Inc. Div.	P.O. Box 8299, Philadelphia 1, Pa.
AMZ	American Maize Products Co-----	250 Park Ave., New York 17, N.Y.
	American Marietta Co.:	
AMR	Adhesive, Resin & Chemical Div-----	42 S. 3d St., Newark, Ohio, and 3400 13th Ave., S.W., Seattle 4, Wash.
AMF	Ferbert-Schornborfer Co. Div-----	12815 Elmwood Ave., Cleveland 11, Ohio.
AMS	Ridgway Color & Chemical Co. Div-----	75 Front St., Ridgway, Pa.
SDC	Southern Dyestuff Co. Div-----	P.O. Box 10098, Charlotte 1, N.C.
AMO	American Oil Co. (Texas)-----	P.O. Box 401, Texas City, Tex.
AMP	American Potash & Chemical Corp-----	3000 W. 6th St., Los Angeles 54, Calif.
ASY	American Synthetic Rubber Corp-----	P.O. Box 360, Louisville 1, Ky.
AV	American Viscose Corp-----	1617 Pennsylvania Blvd., Philadelphia 3, Pa.
ALB	Ames Laboratories, Inc-----	132 Water St., S. Norwalk, Conn.
ACC	Amoco Chemicals Corp-----	130 E. Randolph Dr., Chicago 1, Ill.
ASL	Ansul Chemical Co-----	Staunton St., Marinette, Wis.
APX	Apex Chemical Co., Inc-----	200 S. 1st St., Elizabethport 1, N.J.
APC	Appleton Coated Paper Co-----	825 E. Wisconsin Ave., Appleton, Wis.
ARA	Arapahoe Chemicals, Inc-----	2855 Walnut St., Boulder, Colo.
ADM	Archer-Daniels-Midland Co-----	700 Investors Bldg., Minneapolis 40, Minn.
ARO	Arco Co-----	7301 Bessemer Ave., Cleveland 27, Ohio.
ARG	Argus Chemical Corp-----	633 Court St., Brooklyn 31, N.Y.
	Armour & Co.:	
ARC	Armour Industrial Chemical Co. Div---	110 N. Wacker Dr., Chicago 6, Ill.
ARP	Armour Pharmaceutical Co. Div-----	P.O. Box 511, Kankakee, Ill.
ARK	Armstrong Cork Co-----	W. Liberty St., Lancaster, Pa.
APV	Armstrong Paint & Varnish Works, Inc---	1330-1500 S. Kilbourn Ave., Chicago 23, Ill.
AHC	Arnold, Hoffman & Co., Inc-----	55 Canal St., Providence 1, R.I.
ASH	Ashland Oil & Refining Co-----	1401 Winchester Ave., Ashland, Ky.
AST	Astra Pharmaceutical Products, Inc-----	7 Neponset St., Worcester 6, Mass.
ATL	Atlantic Chemical Corp-----	153 Prospect St., Passaic, N.J.
	Macromol Div-----	153 Prospect St., Passaic, N.J.
ATR	Atlantic Refining Co-----	260 S. Broad St., Philadelphia 1, Pa.
APD	Atlas Chemical Industries, Inc-----	New Murphy Rd. and Concord Pike, Wilmington 99, Del.
APR	Atlas Processing Co-----	P.O. Box 1786, 3546 Midway St., Shreveport, La.
AUG	Augusta Chemical Co-----	P.O. Box 660, Augusta, Ga.
AVS	AviSun Corp-----	1345 Chestnut St., Philadelphia 7, Pa.

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TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1960--Continued

Code	Name of company	Office address
BAC	Baker Castor Oil Co-----	40 Avenue A, Bayonne, N.J.
BKC	J. T. Baker Chemical Co-----	600 N. Broad St., Phillipsburg, N.J.
BKT	Taylor Chemical Div-----	600 N. Broad St., Phillipsburg, N.J.
BGC	Balfour-Guthrie & Co., Ltd., Chemical Div.	P.O. Box 1627, Tacoma 1, Wash.
BAL	Baltimore Paint & Chemical Corp-----	2325 Annapolis Ave., Baltimore 30, Md.
BAT	Bates Chemical Co., Inc-----	Scottdale Rd., Lansdowne, Pa.
BAX	Baxter Laboratories, Inc-----	Morton Grove, Ill.
BCN	Beech-Nut Life Savers, Inc-----	Canajoharie, N.Y.
BCI	Belding Corticelli Industries-----	1407 Broadway, New York 18, N.Y.
BL	Belle Chemical Co., Inc-----	534 Pearl St., Reading, Pa.
BME	Bendix Aviation Corp., Marshall-Eclipse Div.	P.O. Box 538, Troy, N.Y.
BEN	Bennett's-----	65 W. 1st South, Salt Lake City 10, Utah.
BPC	Benzol Products Co-----	237 South St., Newark 5, N.J.
BKL	Berkeley Chemical Corp-----	11 Summit Ave., Berkeley Heights, N.J.
BKS	Berkshire Color & Chemical Co-----	12th and Bern Sts., Reading, Pa.
BIF	Bioferm Corp-----	P.O. Box 1375, Wasco, Calif.
BIS	Bios Laboratories, Inc-----	17 W. 60th St., New York 23, N.Y.
BRD	Bird & Son, Inc., Floor Covering Div---	1934 E. Clark St., E. Walpole, Mass.
BUC	Blackman-Uhler Chemical Co-----	Camp Croft, Spartanburg, S.C.
BCO	Blane Corp-----	35 Pequit St., Canton, Mass.
BQR	Borden Chemical Co-----	350 Madison Ave., New York 17, N.Y.
MCB	Borg-Warner Corp., Marbon Chemical Div-	P.O. Box 68, Washington, W. Va.
BOY	Walter N. Boysen Co-----	1001 42d St., Oakland 8, Calif.
BRS	Bristol-Meyers Co., Bristol Laboratories Div.	P.O. Box 657, Syracuse 1, N.Y.
BLN	Brooklyn Color Works, Inc-----	681 Morgan Ave., Brooklyn 22, N.Y.
BR	Brown Co-----	650 Main St., Berlin, N.H.
BRF	Brown Co., Resi-Chem Div-----	100 E. Broadway, Swanton, Ohio.
ABR	Andrew Brown Co-----	5431 District Blvd., Los Angeles 22, Calif.
BRU	M. A. Bruder & Sons, Inc-----	52d St. and Grays Ave., Philadelphia 43, Pa.
BRV	Bryant Chemical Corp-----	6 North St., N. Quincy 71, Mass.
BUK	Buckeye Cellulose Corp-----	2899 Jackson Ave., Memphis 8, Tenn.
BKM	Buckman Laboratories, Inc-----	1256 N. McLean, Memphis 8, Tenn.
BSC	Burkart-Schler Chemical Co-----	1228 Chestnut St., Chattanooga 2, Tenn.
BUR	Burroughs Wellcome & Co. (U.S.A.), Inc-	1 Scarsdale Rd., Tuckahoe 7, N.Y.
BZ	Bzura, Inc-----	Clark St. and Broadway, Keyport, N.J.
CBT	Samuel Cabot, Inc-----	246 Summer St., Boston 10, Mass.
CAD	Cadet Chemical Corp-----	2153 Lockport-Olcott Rd., Burt, N.Y.
CAU	Calcasieu Chemical Corp-----	P.O. Box 6, 821 Gravier St., New Orleans 12, La.
ORO	California Chemical Co.: Oronite Div-----	200 Bush St., San Francisco 20, Calif.
OTH	Ortho Div-----	Lucas and Ortho Way, Richmond, Calif.
CKK	California Ink Co., Inc-----	545 Sansome St., San Francisco 11, Calif.
CAL	Callery Chemical Co-----	Callery, Pa.
CAP	Capital Plastics, Inc-----	250 Mill St., Rochester 14, N.Y.
COW	Carlisle Chemical Works, Inc-----	West St., Reading 15, Ohio.
CCA	Advance Solvents & Chemical Div-----	500 Jersey Ave., New Brunswick, N.J.
CFC	Carnegies Fine Chemicals of Kearny-----	1106 Harrison Ave., Kearny, N.J.
CM	Carpenter-Morton Co-----	376 3d St., Everett 49, Mass.
CRS	Carus Chemical Co., Inc-----	1375 8th St., LaSalle, Ill.
CWN	Carwin Co-----	Stiles Lane, North Haven, Conn.
CRY	Cary Chemicals, Inc-----	P.O. Box 38, East Brunswick, N.J.
CAT	Catalin Corp. of America-----	1 Park Ave., New York, N.Y.
CEL	Celanese Corp. of America: Celanese Chemical Co. Div-----	522 5th Ave., New York 36, N.Y.
	Celanese Polymer Co. Div-----	744 Broad St., Newark 2, N.J.
CEN	Central Paint & Varnish Works, Inc-----	59 Prospect St., Brooklyn 1, N.Y.
CCC	Chase Chemical Corp-----	3527 Smallman St., Pittsburgh 1, Pa.
CHG	Chemagro Corp-----	P.O. Box 4913, Hawthorn Rd., Kansas City 20, Mo.
SPC	Chemetron Corp., Specific Pharmaceuticals, Chemical Products Div.	386 Park Ave. S., New York 16, N.Y.
CFX	Chemfax, Inc-----	P.O. Box 763, Gulfport, Miss.
CIS	Chemical Insecticide Corp-----	30 Whitman Ave., Metuchen, N.J.
CMG	Chemical Manufacturing Co., Inc-----	Megonoto Rd., Ashland, Mass.
CPR	Chemical Process Co-----	1901 Spring St., Redwood City, Calif.
CPD	Chemical Products Corp-----	P.O. Box 815, Cartersville, Ga.
CCO	Chemico, Inc-----	2508 E. Bailey Rd., Cuyahoga Falls, Ohio.
CKL	Chemlek Laboratories, Inc-----	4040 W. 123d St., Worth, Ill.
CS	Chemstrand Corp-----	350 5th Ave., New York 1, N.Y.
CPC	Childs Pulp Colors, Inc-----	43 Summit St., Brooklyn 31, N.Y.

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TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1960--Continued

Code	Name of company	Office address
CBP	Ciba Pharmaceutical Products, Inc-----	556 Morris Ave., Summit, N.J.
CIT	City Chemical Corp-----	132 W. 22d St., New York 11, N.Y.
CLY	W. A. Cleary Corp-----	P.O. Box 749, New Brunswick, N.J.
CCH	Clinton Chemical Co-----	P.O. Box 108, Phillipsburg, Pa.
CLV	Clover Chemical Co-----	360 Regis Rd., Pittsburgh 36, Pa.
COK	Cockerville Chemicals, Inc-----	Greenwood, Va.
CP	Colgate-Palmolive Co-----	300 Park Ave., New York 22, N.Y.
CW	Collett-Week Corp-----	Quimby St., Ossining 12, N.Y.
CI	Colloids, Inc-----	394 Frelinghuysen Ave., Newark 12, N.J.
CC	Collway Colors, Inc-----	15 Market St., Paterson 1, N.J.
CLB	Columbia Organic Chemicals, Inc-----	1012 Drake St., Columbia, S.C.
CMC	Comcolloid, Inc-----	3240 Grace Ave., New York 69, N.Y.
COR	Commercial Resins Corp-----	594 James Ave., St. Paul 2, Minn.
COM	Commercial Solvents Corp-----	260 Madison Ave., New York 16, N.Y.
CON	Concord Chemical Co., Inc-----	205 S. 2d St., Camden 1, N.J.
CDF	Concord-Danan Co-----	3475 3d Ave., New York 56, N.Y.
CPT	Consolidated Paint Co-----	3101 E. 11th St., Los Angeles 23, Calif.
CWP	Consolidated Water Power & Paper Co----	1140 E. John St., Wisconsin Rapids, Wis.
CD	Continental-Diamond Fibre Corp-----	70 S. Chapel St., Newark, Del.
CO	Continental Oil Co-----	1000 S. Pine, Ponca City, Okla.
CPV	Cook Paint & Varnish Co-----	P.O. Box 389, Kansas City 41, Mo.
CFA	Cooperative Farm Chemicals Association-	P.O. Box 80, Lawrence, Kans.
COP	Coopers Creek Chemical Corp-----	River Rd., W. Conshohocken, Pa.
CBC	Coos Bay Timber Co-----	P.O. Box 869, Coos Bay, Oreg.
CPY	Copolymer Rubber & Chemical Corp-----	P.O. Box 2591, Baton Rouge 1, La.
CRN	Corn Products Co-----	717 5th Ave., New York 22, N.Y.
CSD	Cosden Petroleum Corp-----	P.O. Box 1311, Big Spring, Tex.
CWL	Cowles Chemical Co-----	7016 Euclid Ave., Cleveland 3, Ohio.
ALT	Crompton & Knowles Corp., Althouse Chemical Co. Div.	540 Pear St., Reading, Pa.
CBY	Crosby Chemicals, Inc-----	P.O. Box 111, Picayune, Miss.
CCP	Crown Central Petroleum Corp-----	American Bldg., Baltimore 2, Md.
CRC	Crown Chemical Corp-----	240 India St., Providence 3, R.I.
CRO	Crownoil Chemical Co., Inc-----	2-14 49th Ave., Long Island 1, N.Y.
CRT	Crown Tar & Chemical Works, Inc-----	900 Wewatta St., Denver 4, Colo.
CRZ	Crown Zellerbach Corp., Chemical Products Div.	343 Sansome St., Camas, Wash.
CUT	Cutter Laboratories-----	4th and Parker Sts., Berkeley 10, Calif.
DAN	Dan River Mills, Inc-----	Danville, Va.
DAV	H. B. Davis Co-----	Bush and Severn Sts., Baltimore 30, Md.
DLI	Dawe's Laboratories, Inc-----	4800 S. Richmond St., Chicago 32, Ill.
DEC	Deeey Products Co-----	120 Potter St., Cambridge 42, Mass.
JDC	John Deere Chemical Co-----	Pryor, Okla.
DCI	Delaware Chemicals, Inc-----	726 King St., Wilmington, Del.
DLH	Delhi-Taylor Oil Corp-----	P.O. Box 4067, Corpus Christi, Tex.
DLM	Delmar Chemical Co., Inc-----	P.O. Box 108, Elkton, Md.
DLT	Delta Chemical Works, Inc-----	23 W. 60th St., New York 23, N.Y.
DEP	DePaul Chemical Co., Inc-----	44-27 Purvis St., Long Island 1, N.Y.
DSO	DeSoto Chemical Coatings, Inc-----	1350 S. Kostner Ave., Chicago 23, Ill.
TTX	Detrex Chemical Industries, Inc-----	P.O. Box 501, Detroit 32, Mich.
DEX	Dexter Chemical Corp-----	845 Edgewater Rd., New York 63, N.Y.
DA	Diamond Alkali Co-----	300 Union Commerce Bldg., Cleveland 14, Ohio.
TDC	Diversey Corp-----	1820 Roscoe St., Chicago 13, Ill.
DOD	Donald A Dodd-----	Rt. 5, Box 621, Everett, Wash.
DOM	Dominion Products, Inc-----	10-40 44th Dr., Long Island 1, N.Y.
DGS	Douglas Chemical Corp-----	1624 Darrow Ave., Evanston, Ill.
DVC	Dover Chemical Co-----	15th and Davis Sts., Dover, Ohio.
DOW	Dow Chemical Co-----	Main St., Midland, Mich.
DCC	Dow Corning Corp-----	P.O. Box 592, Midland, Mich.
DRW	E. F. Drew & Co., Inc-----	416 Division St., Boonton, N.J.
DRG	Drug Processors, Inc-----	1219 E. Church St., Adrian, Mich.
DUN	Frank W. Dunne Co-----	1007 41st St., Oakland 8, Calif.
DUP	E. I. duPont de Nemours & Co., Inc-----	10th and Market Sts., Wilmington 98, Del.
DSC	Dye Specialties, Inc-----	26 Journal Sq., Jersey City 6, N.J.
DYK	Dykem Co-----	2307 N. 11th St., St. Louis 6, Mo.
EAK	J. S. & W. R. Eakins, Inc-----	55 Berry St., Brooklyn 11, N.Y.
EK	Eastman Kodak Co-----	343 State St., Rochester 4, N.Y.
EKT	Tennessee Eastman Co. Div-----	P.O. Box 511, Kingsport, Tenn.
EXX	Texas Eastman Co. Div-----	P.O. Box 2068, Longview, Tex.
EDC	Edcan Laboratories-----	10 Pine St., S. Newark, Conn.
EDY	Eddystone Manufacturing Co-----	P.O. Box 471, Wilmington 99, Del.

TABLE 23.--Synthetic organic chemicals: Directory of manufacturers, 1960--Continued

Code	Name of company	Office address
TAE	Thomas A. Edison Industries, McGraw-Edison Co. Div.	120 S. LaSalle St., Chicago 3, Ill.
EMR	Emery Industries, Inc.	4300 Carew Tower, Cincinnati 2, Ohio.
EMK	Emkay Chemical Co.	319 2d St., Elizabethport, N.J.
EN	Endo Laboratories, Inc.	84-40 101st St., Richmond Hill 18, N.Y.
ENJ	Enjay Chemical Co.	15 W. 51st St., New York 19, N.Y.
EPC	Epoxylite Corp.	1428 N. Tyler Ave., North El Monte, Calif.
ERD	Erdmann Chemical Co., Inc.	66 Lister Ave., Newark 5, N.J.
ESC	Escambia Chemical Corp.	P.O. Box 467, Pensacola, Fla.
TNA	Ethyl Corp.	100 Park Ave., New York 17, N.Y.
ETD	Ethyl-Dow Chemical Co.	Midland, Mich.
EVN	Evans Chemetics, Inc.	250 E. 43d St., New York 17, N.Y.
EVN	Everledge Manufacturing, Inc.	Harrison City, Pa.
FMT	Fairmount Chemical Co., Inc.	117 Blanchard St., Newark 5, N.J.
FRM	Farmers' Chemical Co.	P.O. Box 591, Kalamazoo, Mich.
FAR	Farnow, Inc.	4-83 48th Ave., Long Island 1, N.Y.
FRR	Estate of W. U. Farrington	P.O. Box 389, E. Greenwich, R.I.
FCL	Federal Color Laboratories, Inc.	7526 Chickering Ave., Cincinnati 32, Ohio.
FEL	Felton Chemical Co., Inc.	599 Johnson Ave., Brooklyn 37, N.Y.
FER	Ferro Corp., Ferro Chemical Div.	P.O. Box 349, Bedford, Ohio.
FBC	Fiber Chemical Corp.	P.O. Box 218, Matawan, N.J.
FIN	Fine Organics, Inc.	205 Main St., Lodi, N.J.
FIR	Firestone Tire & Rubber Co.: Firestone Plastics Co. Div.	P.O. Box 690, Pottstown, Pa.
FRS	Firestone Synthetic Rubber & Latex Co. Div.	381 W. Wilbeth Rd., Akron 1, Ohio.
FLO	Florasynt Laboratories, Inc.	900 Van Nest Ave., New York 62, N.Y.
FLA	Florida Chemical Co., Inc.	P.O. Box 997, Lake Alfred, Fla.
FMB	Food Machinery & Chemical Corp.: Becco Chemical Div.	Sawyer Ave. and River Rd., Tonawanda, N.Y.
FMW	Chemical Div.	161 E. 42d St., New York 17, N.Y.
FMP	Chemicals & Plastics Div.	1701 Patapsco Ave., Baltimore 26, Md., and P.O. Box 98, Nitro, W. Va.
FOR	Foremost Food & Chemical Co., El Dorado Div.	P.O. Box 599, Oakland 4, Calif.
FOM	Formica Corp., Subsidiary of American Cyanamid Co.	4614 Spring Grove Ave., Cincinnati 32, Ohio.
FG	Foster Grant Co., Inc.	289 N. Main St., Leominster, Mass.
FH	Foster-Heaton Co.	16 E. 5th., Paterson 4, N.J.
FCD	France, Campbell & Darling, Inc.	N. Michigan Ave., Kenilworth, N.J.
FOP	J. P. Frank Chemical & Plastics Corp.	5410 Avenue U, Brooklyn 34, N.Y.
FRE	Freeman Chemical Corp.	222 E. Main St., Port Washington, Wis.
FBS	Fries Bros., Inc.	P.O. Box 8, Carlstadt, N.J.
FSH	Frisch & Co., Inc.	88 E. 11th St., Paterson 4, N.J.
FB	Fritzsche Bros., Inc.	76 9th Ave., New York 11, N.Y.
FLH	H. B. Fuller Co.	4819 Industrial Ct., Cincinnati 17, Ohio.
FLW	W. P. Fuller & Co.	450 E. Grand Ave., S. San Francisco, Calif.
FPI	Furane Plastics, Inc.	4516 Brazil St., Los Angeles 39, Calif.
GAM	Gamma Chemical Corp.	355 Lexington Ave., New York 17, N.Y.
GAN	Gane's Chemical Works, Inc.	535 5th Ave., New York 17, N.Y.
GGY	Geigy Chemical Corp.	P.O. Box 430, Yonkers, N.Y.
GAF	General Aniline & Film Corp.	435 Hudson St., New York, N.Y.
GE	General Electric Co.:	
GEI	Chemical Materials Dept.	1 Plastics Ave., Pittsfield, Mass.
SPD	Insulating Materials Dept.	1 Campbell Rd., Schenectady 6, N.Y.
GNF	Silicone Products Dept.	Waterford, N.Y.
GNM	General Foods Corp., Maxwell Hous Div.	1125 Hudson St., Hoboken, N.J.
GNT	General Mills, Inc.	9200 Wayzata Blvd., Minneapolis 26, Minn.
GRC	General Tire & Rubber Co., Chemical Div.	1708 Englewood Ave., Akron 9, Ohio.
GIL	P. D. George Co.	5200 N. 2d St., St. Louis 7, Mo.
GIV	Gilman Paint & Varnish Co.	W. 8th and Pine Sts., Chattanooga 1, Tenn.
GID	Givaudan Corp.	109-201 Delawanna Ave., Delawanna, N.J.
BFG	Glidden Co.	900 Union Commerce Bldg., Cleveland 14, Ohio.
GCG	B. F. Goodrich Co., B. F. Goodrich Chemical Co. Div.	3135 Euclid Ave., Cleveland 15, Ohio.
GYR	Goodrich-Gulf Chemicals, Inc.	1717 E. 9th St., Cleveland 14, Ohio.
GOR	Goodyear Tire & Rubber Co.	1144 E. Market St., Akron 16, Ohio.
GDN	Gordon Chemical Co., Inc.	88 Webster St., Worcester 3, Mass.
GDL	Gordon Chemicals, Inc.	Broad and 13th Sts., Carlstadt, N.J.
	Gordon-Lacey Chemical Products Co., Inc.	57-02 48th St., Maspeth 78, N.Y.

TABLE 23. -- Synthetic organic chemicals: Directory of manufacturers, 1960--Continued

Code	Name of Company	Office address	Code	
GRD	W. R. Grace & Co.:		JAM	Jame
GRH	Dewey & Almy Chemical Div-----	62 Whittemore Ave., Cambridge 40, Mass.	JCO	Jeff
GCC	Hatco Chemical Div-----	King George Post Rd., P.O. Box 27, Fords, N.J.	MER	Jeff
GRP	Nitrogen Products Div-----	147 Jefferson, Memphis 7, Tenn.		Co
GPR	Polymer Chemicals Div-----	225 Allwood Rd., Clifton, N.J.	JEN	Jenr
GRV	Grain Processing Corp-----	1600 Oregon St., Muscatine, Iowa.	JRC	Andr
GRA	Grand Rapids Varnish Corp-----	1350 Steele Ave. SW., Grand Rapids 2, Mich.	JSC	Jers
GLC	Great American Plastics Co-----	85 Factory St., Nashua, N.H.	JWL	Jewe
GLS	Great Lakes Chemical Corp-----	2024 Filer City Rd., Filer City, Mich.	JNS	St. C
GRS	Great Southern Chemical Corp-----	P.O. Box 4166, Corpus Christi, Tex.	JOB	Jone
GRW	Great Western Sugar Co-----	P.O. Box 5308, Terminal Annex, Denver 17, Colo.	JOD	Jone
GUA	Guard Chemical Co-----	N. Water St., Ossining, N.Y.	JOB	W. H
GOC	Gulf Oil Corp-----	P.O. Drawer 2100, Houston 1, Tex.		Co
GDC	Gulf Research & Development Co-----	P.O. Drawer 2038, Pittsburgh 30, Pa.		
GUY	Guyan Color & Chemical Works, Inc-----	Box 1088, Huntington 1, W. Va.	KAL	Kali
			KEL	Kay-
HNC	H & N Chemical Co-----	88 Bleeker St., Paterson 4, N.J.	KEN	Kell
HLI	Haag Laboratories, Inc-----	14110 S. Seeley, Blue Island, Ill.	KEN	Kend
HAB	Halby Products Co., Inc-----	P.O. Box 366, Wilmington 99, Del.		Kenn
HAL	C. P. Hall Co. of Illinois-----	5245 W. 73d St., Chicago 38, Ill.	KOC	Ch
HAM	Hampden Color & Chemical Co-----	5 Albany St., Springfield 5, Mass.	KOU	Ut
HMP	Hampshire Chemical Corp-----	Poisson Ave., Nashua, N.H.	KPI	Kenr
HAN	Hanna Paint Manufacturing Co., Inc-----	1313 Windsor Ave., Columbus 16, Ohio.	KES	Kess
HRS	Harris Standard Paint Co., Inc-----	1026 N. 19th St., Tampa 1, Fla.	KYS	Keys
HSB	Harshaw Chemical Co-----	1945 E. 97th St., Cleveland 6, Ohio.	KCH	Keys
HRT	Hart Products Corp-----	1440 Broadway, New York 18, N.Y.	KCH	Keys
HLC	Hartman-Leddon Co., Inc-----	60th and Woodland Ave., Philadelphia 43, Pa.	KCV	Keys
HVG	Haveg Industries, Inc., Resin & Compound Div.	Plastics Park, Wilmington 8, Del.	KIS	Kilso
HLN	Helene Curtis Industries, Inc-----	4401 W. North Ave., Chicago 39, Ill.	KNG	O. L.
HPC	Hercules Powder Co-----	910 Hercules Tower, Wilmington 99, Del.	KNP	Knapp
IMP	Imperial Color Chemical & Paper Corp. Div.	P.O. Box 231, Glen Falls, N.Y.	KND	Knoed
			KOR	Knudd
HER	Heresite & Chemical Co-----	822 S. 14th St., Manitowoc, Wis.		Cal
HET	Heterochemical Corp-----	111 E. Hawthorne Ave., Valley Stream, N.Y.	KON	H. Kc
HEX	Hexagon Laboratories, Inc-----	3536 Peartree Ave., New York 69, N.Y.	KIK	Kolke
HAP	Hexcel Products, Inc., Applied Plastics Div.	130 Penn St., El Segundo, Calif.	KPC	Koppe
			KPP	Ch
HN	Heyden Newport Chemical Corp-----	342 Madison Ave., New York 17, N.Y.	KPT	Pla
HNW	Newport Industries Div-----	P.O. Box 911, Pensacola, Fla.	KRY	Tar
HNX	Nuodex Products Div-----	830 Magnolia Ave., Elizabeth, N.J.	KYN	Kryst
HDC	Hodag Chemical Corp-----	7247 N. Central Park Ave., Skokie, Ill.		Kyani
HST	Hoechst Chemical Corp-----	129 Quidnick St., W. Warwick, R.I.	LKL	Lakes
HOF	Hoffmann-LaRoche, Inc-----	324 Kingsland Rd., Nutley 10, N.J.	LAM	LaMot
HFT	Hoffman-Taff, Inc-----	P.O. Box 1246, Springfield, Mo.	LAS	LaSal
HCC	Holland Color & Chemical Co-----	492 Douglas Ave., Holland, Mich.	LUR	Laure
HK	Hooker Chemical Corp-----	666 5th Ave., New York 19, N.Y.	LMI	Lawre
HKD	Durez Plastics Div-----	Walck Rd., N. Tonawanda, N.Y.	KRM	Lawte
HKP	Phosphorus Div-----	Buffalo Ave. and 47th St., Niagara Falls, N.Y.		Res
EFH	E. F. Houghton & Co-----	303 W. Lehigh Ave., Philadelphia 33, Pa.	LEA	Leate
GLY	Chas. L. Huisking & Co., Inc., Glyco Chemicals Div.	417 5th Ave., New York 16, N.Y.	LEB	Lebar
HUC	Hukill Chemical Corp-----	2533 Broadway Ave., Cleveland 13, Ohio.	LEF	Leffi
HMY	Humphrey-Wilkinson, Inc-----	Devine St., North Haven, Conn.	LEH	Lehig
HUS	Husky Oil Co-----	P.O. Box 380, Cody, Wyo.	LEM	B. L.
HYN	Hynson, Westcott & Dunning, Inc-----	Charles and Chase Sts., Baltimore 1, Md.	LEN	Leona
			LEV	Lever
IDC	Industrial Dyestuff Co-----	Dexter Rd., E. Providence 14, R.I.	LVR	C. Le
INC	Inland Chemical Corp-----	415 Lexington Ave., New York 17, N.Y.	LVY	Fred'
INL	Inland Steel Container Co-----	6532 S. Menard Ave., Chicago 38, Ill.	LEW	Lewis
	Interchemical Corp.:		LIL	Eli L
ICC	Color & Chemicals Div-----	150 Wagaraw Rd., Hawthorne, N.J.	LON	Charl
ICF	Finishes Div-----	224 McWhorter St., Newark 1, N.J.	LUB	Lubri
IFF	International Flavors & Fragrances, Inc-----		LUE	Georg
IMC	International Minerals & Chemical Corp.	521 W. 57th St., New York 19, N.Y.	MPI	Magn
INP	International Paper Co-----	5401 Old Orchard Rd., Skokie, Ill.	MGR	Magru
IRC	International Resistance Co-----	220 E. 42d St., New York 17, N.Y.	MAH	Maher
IPR	Inter-Pacific Resins, Inc-----	401 N. Broad St., Philadelphia 8, Pa.	MAL	Malli
ITX	Intex Chemical Corp-----	P.O. Box 445, Sweet Home, Oreg.	SNM	Mansu
IRI	Ironsides Co-----	165 Main St., Lodi, N.J.	MRB	Marbl
		270 W. Mound St., Columbus 15, Ohio.	MRD	Marde
			MRV	Marlo
			MRX	Max M
			MDP	Maryl

TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1960--Continued

Code	Name of company	Office address
JAM	Jamestown Paint & Varnish Co-----	Jamestown, Pa.
JCC	Jefferson Chemical Co., Inc-----	P.O. Box 303, Houston 1, Tex.
MER	Jefferson Lake Sulphur Co., Merichem Co. Div.	1914 Haden Rd., Houston 15, Tex.
JEN	Jennison-Wright Corp-----	Box 4187, Station E, Toledo 9, Ohio.
JRG	Andrew Jergens Co-----	2535 Spring Grove Ave., Cincinnati 14, Ohio.
JSC	Jersey State Chemical Co-----	59 Lee Ave., Haledon, N.J.
JWL	Jewel Paint & Varnish Co-----	345 N. Western Ave., Chicago 12, Ill.
JNS	S. C. Johnson & Son, Inc-----	1525 Howe St., Racine, Wis.
JOB	Jones-Blair Paint Co-----	P.O. Box 35286, Dallas 35, Tex.
JOD	Jones-Dabney Co-----	1481 S. 11th St., Louisville 8, Ky.
JOR	W. H. & F. Jordan, Jr. Manufacturing Co.	2126 E. Somerset St., Philadelphia 34, Pa.
KAL	Kali Manufacturing Co-----	427 E. Moyer St., Philadelphia 25, Pa.
KF	Kay-Fries Chemicals, Inc-----	180 Madison Ave., New York 16, N.Y.
KEL	Kelly-Pickering Chemical Corp-----	956 Bransten Rd., San Carlos, Calif.
KEN	Kendall Refining Co-----	77 Kendall Ave., Bradford, Pa.
	Kennecott Copper Corp.:	
KCC	Chino Mines Div-----	Hurley, N. Mex.
KCU	Utah Copper Div-----	P.O. Box 1650, Salt Lake City 10, Utah.
KPI	Kenrich Petrochemicals, Inc-----	57-02 48th St., Maspeth 78, N.Y.
KES	Kessler Chemical Co., Inc-----	State Rd. and Cottman Ave., Philadelphia 35, Pa.
KYS	Keysor Chemical Co-----	26000 Bouquet Canyon Rd., Saugus, Calif.
KOH	Keystone Chemurgic Corp-----	R.D. #2, Bethlehem, Pa.
KOW	Keystone Color Works, Inc-----	151 W. Gay Ave., York, Pa.
KPV	Keystone Paint & Varnish Corp-----	71 Otsego St., Brooklyn 31, N.Y.
KLS	Kilsdonk Chemical Corp-----	101 Canal St., Lock Haven, Pa.
KNG	O. L. King & Co-----	640 Gilman St., Berkeley 10, Calif.
KNP	Knapp Products, Inc-----	180 Hamilton Ave., Lodi, N.J.
KND	Knoedler Chemical Co-----	651 High St., Lancaster, Pa.
KCR	Knudsen Creamery Co. of California, Calresin Co. Div.	4543 Brazil St., Los Angeles 39, Calif.
KON	H. Kohnstamm & Co., Inc-----	161 Avenue of the Americas, New York 13, N.Y.
KLK	Kolker Chemical Corp-----	600 Doremus Ave., Newark 5, N.J.
	Koppers Co., Inc.:	
KPC	Chemicals & Dyestuffs Div-----	Koppers Bldg., 430 7th Ave., Pittsburgh 19, Pa.
KPP	Plastics Div-----	Koppers Bldg., 430 7th Ave., Pittsburgh 19, Pa.
KPT	Tar Products Div-----	Koppers Bldg., 430 7th Ave., Pittsburgh 19, Pa.
KRY	Krystall Chemical Co-----	1301 W. Belden Ave., Chicago 14, Ill.
KYN	Kyanize Paints, Inc-----	2d and Boston Sts., Everett 49, Mass.
LKL	Lakeside Laboratories, Inc-----	1707 E. North Ave., Milwaukee 1, Wis.
LAM	LaMotte Chemical Products Co-----	Chestertown, Md.
LAS	LaSalle Chemical Corp-----	21-23 Merseles St., Jersey City 2, N.J.
LUR	Laurel Soap Manufacturing Co., Inc---	Thompson and Tioga Sts., Philadelphia 34, Pa.
LMI	Lawrence Mills, Inc-----	19 S. Canal St., Lawrence, Mass.
KRM	Lawter Chemicals, Inc., Krumbhaar Resin Div.	3550 Touhy Ave., Chicago 45, Ill.
LEA	Leatex Chemical Co-----	2722 N. Hancock St., Philadelphia 33, Pa.
LEB	Lebanon Chemical Corp-----	P.O. Box 532, Lebanon, Pa.
LEF	Leffingwell Chemical Co-----	10523 S. Santa Gertrudes Rd., Whittier, Calif.
LEH	Lehigh Chemical Co-----	P.O. Box 120, Chestertown, Md.
LEM	B. L. Lemke & Co., Inc-----	199 Main St., Lodi, N.J.
LEN	Leonard Refineries, Inc-----	E. Superior St., Alma, Mich.
LEV	Lever Brothers Co-----	390 Park Ave., New York 22, N.Y.
LVR	C. Lever Co., Inc-----	Howard and Huntington Sts., Philadelphia 33, Pa.
LVY	Fred'k H. Levey Co., Inc-----	380 Madison Ave., New York 17, N.Y.
LEW	Lewis Tar Products Co-----	P.O. Box A, Lyons, Ill.
LIL	Eli Lilly & Co-----	740 S. Alabama St., Indianapolis 6, Ind.
LON	Charles R. Long, Jr. Co-----	1630 W. Hill St., Louisville 10, Ky.
LUB	Lubrizol Corp-----	Cleveland 17, Ohio.
LUE	George Lueders & Co-----	427 Washington St., New York 13, N.Y.
MPI	Magnolia Plastics, Inc-----	5547 Peachtree Industrial Blvd., Chamblee, Ga.
MGR	Magruder Color Co., Inc-----	2385 Richmond Terrace, Staten Island 2, N.Y.
MAH	Maier Color & Chemical Co-----	1700 N. Elston Ave., Chicago 22, Ill.
MAL	Mallinckrodt Chemical Works-----	3600 N. 2d St., St. Louis 7, Mo.
SNM	Mansun Paint Co., Inc-----	416 Boulevard, E. Paterson, N.J.
MRB	Marblette Corp-----	37-31 30th St., Long Island City 1, N.Y.
MRD	Marden-Wild Corp-----	500 Columbia St., Somerville 43, Mass.
MRV	Marlowe-Van Loan Corp-----	1511 Byrum St., High Point, N.C.
MRX	Max Marx Color & Chemical Co-----	192 Coit St., Irvington 11, N.J.
MDP	Maryland Plastics, Inc-----	25 E. Central Ave., Federalsburg, Md.

TABLE 23.--Synthetic organic chemicals: Directory of manufacturers, 1960--Continued

Code	Name of company	Office address
MCO	Mathe Chemical Co-----	169 Millbank St., Lodi, N.J.
MEE	Maumee Chemical Co-----	1310 Expressway Dr., Toledo 8, Ohio.
MAY	Otto B. May, Inc-----	52 Amsterdam St., Newark 5, N.J.
MCC	McCloskey Varnish Co-----	7600 State Rd., Philadelphia 49, Pa.
MCW	McWhorter Chemicals, Inc-----	1645 S. Kilbourn Ave., Chicago 23, Ill.
MED	Medical Chemicals Corp-----	4122 W. Grand Ave., Chicago 51, Ill.
MRK	Merck & Co., Inc-----	Lincoln Ave., Rahway, N.J.
MTM	M. J. Merkin Paint Co., Inc-----	1441 Broadway, New York 18, N.Y.
MPC	Mesa Plastics Co-----	12270 Nebraska Ave., Los Angeles 25, Calif.
MHI	Metal Hydrides, Inc-----	12-24 Congress St., Beverly, Mass.
MTL	Metalsalts Corps-----	200 Wagaraw Rd., Hawthorne, N.J.
MRA	Metro-Atlantic, Inc-----	2072 Smith St., Centerdale 11, R.I.
JMS	J. Meyer & Sons, Inc-----	4321 N. 4th St., Philadelphia 40, Pa.
MCH	Michigan Chemical Corp-----	500 N. Bankson St., St. Louis, Mich.
MID	Midland Industrial Finishes Co-----	E. Water St., Waukegan, Ill.
MLS	Miles Chemical Co-----	1127 Myrtle St., Elkhart, Ind.
MOR	Mineral Oil Refining Co-----	P.O. Drawer C, Dickinson 1, Tex.
MMM	Minnesota Mining & Manufacturing Co-----	900 Bush Ave., St. Paul 6, Minn.
MNP	Minnesota Paints, Inc-----	1101 S. 3d St., Minneapolis 15, Minn.
MIR	Miranol Chemical Co., Inc-----	277 Coit St., Irvington 11, N.J.
MSC	Mississippi Chemical Corp-----	P.O. Box 563, Yazoo City, Miss.
MOB	Mobay Chemical Co-----	Penn Lincoln Parkway, W. Pittsburgh, Pa.
MFG	Molded Fiber Glass Body Co-----	4601 Benefit Ave., Ashtabula, Ohio.
MOA	Mona Industries, Inc-----	65 E. 23d St., Paterson 17, N.J.
MON	Monsanto Chemical Co-----	800 N. Lindbergh Blvd., St. Louis 66, Mo.
MTC	Plastics Div-----	812 Monsanto Ave., Springfield 2, Mass., and P.O. Box 1311, Texas City, Tex.
	Western Div-----	P.O. Box 120, Santa Clara, Calif.
MTR	Montrose Chemical Co-----	100 Lister Ave., Newark 5, N.J.
MTO	Montrose Chemical Corp. of California-----	500 S. Virgil Ave., Los Angeles 5, Calif.
MR	Benjamin Moore & Co-----	548 5th Ave., New York 36, N.Y.
MRN	Morningstar Paisley, Inc-----	1770 Canalport Ave., Chicago 16, Ill.
MRT	Morton Chemical Co-----	110 N. Wacker Dr., Chicago 6, Ill.
MRW	Morwear Paint Co-----	568 14th St., Oakland 12, Calif.
MOT	Motomco, Inc-----	89 Terminal Ave., Clark, N.J.
NTB	National Biochemical Co-----	3127 W. Lake St., Chicago 12, Ill.
NTC	National Casein Co-----	601 W. 80th St., Chicago 20, Ill.
SHF	National Dairy Products Corp., Sheffield Chemical Co. Div.	P.O. Box 630, Norwich, N.Y.
USI	National Distillers & Chemical Corp., U.S. Industrial Chemicals Co. Div.	99 Park Ave., New York 16, N.Y.
NTL	National Lead Co-----	111 Broadway, New York 6, N.Y.
NPP	National Plastic Products Co-----	Odenton, Md.
NPI	National Polychemicals, Inc-----	Eames St., Wilmington, Mass.
NSP	National Southern Products Corp-----	P.O. Box 390, Tuscaloosa, Ala.
NSC	National Starch & Chemical Corp-----	750 3d Ave., New York 17, N.Y.
NVF	National Vulcanized Fibre Co-----	1000 Beach St., Wilmington, Del.
NES	Nease Chemical Co., Inc-----	P.O. Box 221, State College, Pa.
NEP	Nepera Chemical Co., Inc-----	Rt. 17 and Averill Ave., Harriman, N.Y.
NEV	Neville Chemical Co-----	Neville Island, Pittsburgh 25, Pa.
NYP	New York & Pennsylvania Co., Inc-----	425 Park Ave., New York 22, N.Y.
NIL	Nilok Chemicals, Inc-----	2000 College Ave., Niagara Falls, N.Y.
NON	A. P. Noweiler Co-----	P.O. Box 1007, Oshkosh, Wis.
NOP	Nopco Chemical Co., Inc-----	60 Park Pl., Newark 2, N.J.
NEO	Norda Essential Oil & Chemical Co., Inc-----	601 W. 26th St., New York 1, N.Y.
NW	Northwestern Chemical Co-----	120 N. Aurora St., W. Chicago, Ill.
NOR	Norwich Pharmacal Co-----	17 Eaton Ave., Norwich, N.Y.
OB	O'Brien Corp-----	2001 W. Washington Ave., South Bend 21, Ind.
ODB	Odessa Butadiene Co-----	P.O. Box 1161, El Paso, Tex.
ODS	Odessa Styrene Co-----	P.O. Box 1161, El Paso, Tex.
OH	Ohio Chemical & Surgical Equipment Co-----	1400 E. Washington Ave., Madison 10, Wis.
OIL	Oil & Chemical Products, Inc-----	295 Madison Ave., New York 17, N.Y.
OLC	Old Colony Tar Co., Inc-----	500 5th Ave., New York 36, N.Y.
OLH	Old Hickory Chemical Co., Inc-----	P.O. Box 1480, Richmond 12, Va.
OMC	Olin Mathieson Chemical Corp-----	P.O. Box 1996, Baltimore 3, Md.
OMB	Blockson Chemical Co. Div-----	Joliet, Ill.
OMS	E. R. Squibb & Sons Div-----	745 5th Ave., New York 22, N.Y.
ONX	Onyx Chemical Corp-----	190 Warren St., Jersey City 2, N.J.
OPC	Orbis Products Corp-----	601 W. 26th St., New York 1, N.Y.
ORG	Organics, Inc-----	1724 Greenleaf Ave., Chicago 26, Ill.
ORT	Ortho Chemical Corp-----	52-20 37th St., Long Island City 1, N.Y.

TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1960--Continued

Code	Name of company	
CSB	C. J. Osborn Co-----	1301 W. Blancke St., Linden, N.J.
OTA	Ottawa Chemical Co-----	700 N. Wheeling St., Toledo 5, Ohio.
OTT	Ottol Oil Co-----	455 Cortlandt St., Belleville 9, N.J.
OCF	Owens-Corning Fiberglas Corp-----	National Bank Bldg., Toledo 1, Ohio.
PBS	Pabst Brewing Co-----	917 W. Juneau Ave., Milwaukee 1, Wis.
PCA	Pacific Carbide & Alloys Co-----	P.O. Box 5607, Portland 17, Oreg.
PAN	Pan American Petroleum Corp-----	P.O. Box 591, Tulsa 2, Okla.
PNT	Pantasote Co-----	26 Jefferson St., Passaic, N.J.
PD	Parke-Davis & Co-----	Foot of Jos. Campau, Detroit 32, Mich.
PRP	M. W. Parsons-Plymouth, Inc-----	59 Beekman St., New York 38, N.Y.
PAT	Patent Chemicals, Inc-----	335 McLean Blvd., Paterson 4, N.J.
FUL	Paul-Lewis Laboratories, Inc-----	4215 N. Port Washington Ave., Milwaukee 12, Wis.
PEX	Peck's Products Co-----	610 E. Clarence Ave., St. Louis 15, Mo.
PCH	Peerless Chemical Co-----	3850 Oakman Blvd., Detroit 4, Mich.
PCO	Peerless Color Co., Inc-----	521 North Ave., Plainfield, N.J.
PEL	Pelron Corp-----	7847 W. 47th St., Lyons, Ill.
PEN	S. B. Penick & Co-----	100 Church St., New York, N.Y.
PAS	Pennsalt Chemicals Corp-----	3 Penn Center, Philadelphia 2, Pa.
PAI	Pennsylvania Industrial Chemical Corp-----	120 State St., Box 240, Clairton, Pa.
PAR	Pennsylvania Refining Co-----	Butler Savings and Trust Bldg., Butler, Pa.
PGU	Perkins Glue Co-----	632 Cannon Ave., Lansdale, Pa.
PER	Perry & Derrick Co., Inc-----	2510 Highland Ave., Cincinnati 12, Ohio.
PET	Petroleum Chemicals, Inc-----	P.O. Box 1522, Lake Charles, La.
PIT	Petro-Tex Chemical Corp-----	P.O. Box 2584, Houston 1, Tex.
PFN	Pfanstiehl Laboratories, Inc-----	1219 Glen Rock Ave., Waukegan, Ill.
IOC	Pfaudler Permutit, Inc., Ionac Chemical Co. Div.	Birmingham, N.J.
POW	Pfister Chemical Works, Inc-----	Linden Ave., Ridgefield, N.J.
PFZ	Chas. Pfizer & Co., Inc-----	235 E. 42d St., New York 17, N.Y.
PHR	Pharmachem Corp-----	Broad and Wood Sts., Bethlehem, Pa.
PFP	Phelan-Faust Paint Manufacturing Co-----	932 Loughborough Ave., St. Louis 11, Mo.
PLC	Phillips Chemical Co-----	Adams Bldg., Bartlesville, Okla.
PLP	Phillips Petroleum Co-----	Phillips Bldg., Bartlesville, Okla.
PNX	Phoenix Oil Co-----	9505 Cassius Ave., Cleveland 5, Ohio.
PIC	Pierce Chemical Co-----	P.O. Box 117, Rockford, Ill.
PIL	Pilot Chemical Co. of California-----	11756 Burke St., Santa Fe Springs, Calif.
PIT	Pitt-Consol Chemical Co-----	191 Doremus Ave., Newark 5, N.J.
PCC	Pittsburgh Coke & Chemical Co., Pitts- burgh Chemical Co. Div.	2000 Grant Bldg., Pittsburgh 30, Pa.
PPG	Pittsburgh Plate Glass Co-----	1 Gateway Center, Pittsburgh 22, Pa.
PLN	Planetary Chemical Co., Inc-----	3500 DeKalb St., St. Louis 18, Mo.
PLA	Plastics Corp. of America-----	700 Canal St., Box 1158, Stamford, Conn.
PLS	Plastics Engineering Co-----	1607 Geele Ave., Sheboygan, Wis.
PLU	Plumb Chemical Corp-----	4837 James St., Philadelphia 37, Pa.
PYL	Polychemical Laboratories, Inc-----	490 Hunts Point Ave., New York 59, N.Y.
POL	Polymer Corp-----	Fairmont and Alton Aves., Reading, Pa.
PLY	Polymer Industries, Inc-----	Viaduct Rd., Springdale, Conn.
PYR	Poly Resins-----	11655 Wicks St., Sun Valley, Calif.
PYZ	Polyrez Co., Inc-----	So. Columbia St. and Railroad, Woodbury, N.J.
PDC	Poughkeepsie Dyestuff Corp-----	77 N. Water St., Poughkeepsie, N.Y.
PRT	Pratt & Lambert, Inc-----	75 Tonawanda St., Buffalo 7, N.Y.
PCS	Process Chemicals Co-----	8733 S. Dice Rd., Santa Fe Springs, Calif.
PG	Procter & Gamble Co., Procter & Gamble Manufacturing Co. Div.	301 E. 6th St., Cincinnati 2, Ohio.
PC	Proctor Chemical Co., Inc-----	P.O. Box 399, Salisbury, N.C.
PRD	Productol Co-----	417 S. Hill St., Los Angeles 13, Calif.
PUB	Publicker Industries, Inc-----	1429 Walnut St., Philadelphia 2, Pa.
PSP	Puget Sound Pulp & Timber Co-----	300 Laurel St., Bellingham, Wash.
PRO	Pure Oil Co-----	200 E. Gulf Rd., Palatini, Ill.
PRX	Purex Corp., Ltd-----	9300 Rayo Ave., South Gate, Calif.
QCP	Quaker Chemical Products Corp-----	Elm, Lime, and Sandy Sts., Conshohocken, Pa.
QKO	Quaker Oats Co-----	Merchandise Mart Plaza, Chicago 54, Ill.
RSA	R. S. A. Corp-----	690 Saw Mill River Rd., Ardsley, N.Y.
RAB	Raybestos-Manhattan, Inc., Raybestos Div.	P.O. Box 1021, Bridgeport 2, Conn.
RET	Rayette, Inc., Chemical Div-----	261 E. 5th St., St. Paul 1, Minn.
RED	Red Spot Paint & Varnish Co., Inc-----	110 Main St., Evansville 8, Ind.
RPC	Refined Products Corp-----	624 Schuyler Ave., Lyndhurst, N.J.
RCI	Reichhold Chemicals, Inc-----	525 N. Broadway, White Plains, N.Y.
AKL	Alkydol Laboratories Div-----	7738 W. 61st Pl., Summit, Ill.
VAR	Varcum Chemical Div-----	Niagara Falls, N.Y.

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TABLE 23.--Synthetic organic chemicals: Directory of manufacturers, 1960--Continued

Code	Name of company	Office address
RIL	Reilly Tar & Chemical Corp-----	1615 Merchants Bank Bldg., Indianapolis 4, Ind.
REL	Reliance Varnish Co., Inc-----	4730 Crittenden Dr., Louisville 9, Ky.
CPL	Coast Paint & Lacquer Co. Div-----	P.O. Box 1113, Houston 1, Tex.
REM	Remington Arms Co., Inc-----	939 Barnum Ave., Bridgeport 2, Conn.
REP	Republic Creosoting Co-----	1615 Merchants Bank Bldg., Indianapolis 4, Ind.
RCC	Rexall Chemical Co-----	8480 Beverly Blvd., Los Angeles 54, Calif.
REZ	Rezolin, Inc-----	1651 18th St., Santa Monica, Calif.
RDA	Rhodia, Inc-----	60 E. 56th St., New York 22, N.Y.
RCD	Richardson Co-----	27th Ave. and Lake St., Melrose Park, Ill.
RIC	Richfield Oil Corp-----	555 S. Flower St., Los Angeles 17, Calif.
RIK	Riker Laboratories, Inc-----	19901 Nordhoff St., Northridge, Calif.
RMC	Rinshed-Mason Co-----	5935 Milford Ave., Detroit 10, Mich.
RT	F. Ritter & Co-----	4001 Goodwin Ave., Los Angeles 39, Calif.
RTC	Ritter Chemical Co., Inc-----	403 W. Main St., Amsterdam, N.Y.
RIV	Riverdale Chemical Co-----	220 E. 17th St., Chicago Heights, Ill.
RB	Robert & Co., Inc-----	20 Vesey St., New York 7, N.Y.
RBC	Roberts Chemicals, Inc-----	P.O. Box 446, Nitro, W. Va.
ROC	Rock Hill Printing & Finishing Co-----	Rock Hill, S.C.
RGC	Rogers Corp-----	Mill St., Rogers, Conn.
RH	Rohm & Haas Co-----	222 W. Washington Sq., Philadelphia 5, Pa.
ROM	Roma Chemical Corp-----	900 Passaic Ave., E. Newark, N.J.
ROS	Rosett Chemicals, Inc-----	84 Waydell St., Newark 5, N.J.
ROY	Royce Chemical Co-----	Carlton Ave., Carlton Hill, N.J.
RUB	Rubber Corp. of America-----	New South Rd., Hicksville, N.Y.
RUR	Ruberoid Co-----	500 5th Ave., New York 36, N.Y.
SWC	S & W Chemical Co., Inc-----	P.O. Box 995, LaPorte, Tex.
LKY	St. Regis Paper Co., Lake States Yeast & Chemical Div.	603 W. Davenport St., Rhinelander, Wis.
SAL	Dr. Salsbury's Laboratories-----	500 Gilbert St., Charles City, Iowa.
SLV	Salvo Chemical Corp-----	Rothschild, Wis.
SAN	Sandoz, Inc-----	61-63 Van Dam St., New York 13, N.Y.
SAR	Sartomer Resins, Inc-----	32d and Spring Garden Sts., Philadelphia 4, Pa.
SCF	Schaefer Varnish Co., Inc-----	15th and Magnolia Sts., Louisville 10, Ky.
SCN	Schenectady Varnish Co., Inc-----	Congress St. and 9th Ave., Schenectady 1, N.Y.
SCR	R. P. Scherer Corp-----	9425 Grinnell Ave., Detroit 13, Mich.
SCH	Schering Corp-----	1011 Morris Ave., Union, N.J.
SCO	Scholler Bros., Inc-----	Collins and Westmoreland Sts., Philadelphia 34, Pa.
FMF	Schuykill Chemical Co-----	2346 Sedgley Ave., Philadelphia 32, Pa.
SBR	Schwarz Bioresearch, Inc-----	230 Washington St., Mt. Vernon, N.Y.
SRL	G. D. Searle & Co-----	P.O. Box 5110, Chicago 80, Ill.
SED	Seidlitz Paint & Varnish Co-----	18th and Garfield, Kansas City 10, Mo.
SRC	Shawinigan Resins Corp-----	644 Monsanto Ave., Springfield 1, Mass.
SHO	Shell Oil Co-----	50 W. 50th St., New York 20, N.Y.
SHC	Shell Chemical Co. Div-----	50 W. 50th St., New York 20, N.Y.
SHP	Shepherd Chemical Co-----	2803 Highland Ave., Cincinnati 12, Ohio.
SW	Sherwin-Williams Co-----	101 Prospect Ave., N.W., Cleveland I, Ohio.
SHL	Shulton, Inc-----	P.O. Box 46, Clifton, N.J.
SID	George F. Siddall Co., Inc-----	P.O. Box 925, Spartanburg, S.C.
SOG	Signal Oil & Gas Co-----	P.O. Box 5008, Harrisburg Station, Houston 12, Tex.
SIM	Simpson Redwood Co-----	2301 N. Columbia Blvd., Portland 17, Oreg.
SIN	Sinclair Refining Co-----	600 5th Ave., New York 20, N.Y.
SIP	James B. Sipe & Co-----	Box 8010, Pittsburgh 16, Pa.
SK	Smith, Kline & French Laboratories-----	1500 Spring Garden St., Philadelphia 1, Pa.
SM	Socony Mobil Oil Co., Inc., Mobil Oil Co. Div.	612 S. Flower St., Los Angeles 54, Calif., and P.O. Box 3311, Beaumont, Tex.
SPP	Socony Paint Products Co-----	Metuchen, N.J.
SOH	Solar Nitrogen Chemicals, Inc., Sohio Chemical Co., Agent.	554A Guildhall Bldg., Cleveland 15, Ohio.
SOL	Solar Chemical Corp-----	29 Fuller St., Leominster, Mass.
SIC	Soluol Chemical Co., Inc-----	Green Hill and Market Sts., W. Warwick, R.I.
SVT	Solvent Chemical Co., Inc-----	341 Commercial St., Malden 48, Mass.
SON	Sonneborn Chemical & Refining Corp-----	300 Park Ave. S., New York 10, N.Y.
SNC	Sonoco Products Co-----	Hartsville, S.C.
SNI	Southern Nitrogen Co-----	P.O. Box 246, Savannah, Ga.
SOR	Southern Resin Glue Co-----	P.O. Box 352, Fayetteville, N.C.
SOS	Southern Sizing Co-----	3056 SE. Main St., East Point, Ga.
SPL	Spaulding Fibre Co., Inc-----	310 Wheeler St., Tonawanda, N.Y.
SPN	Spencer Chemical Co-----	610 Dwight Bldg., Kansas City 5, Mo.
STA	A. E. Staley Manufacturing Co-----	22d and Eldorado Sts., Decatur, Ill.
UBS	U B S Chemical Co. Div-----	491 Main St., Cambridge 42, Mass.
SAC	Standard Agricultural Chemicals, Inc-----	1301 Jefferson St., Hoboken, N.J.
CLN	Standard Brands, Inc., Clinton Corn Processing Co. Div.	Clinton, Iowa.

TABLE 23. --Synthetic organic chemicals: Directory of manufacturers, 1960-- Continued

Code	Name of company	Office address
SCP	Standard Chemical Products, Inc-----	1301 Jefferson St., Hoboken, N.J.
SCC	Standard Chlorine Chemical Co., Inc----	115 Jacobus Ave., S. Kearny, N.J.
STD	Standard Dyestuff Corp-----	19 E. 5th St., Paterson 4, N.J.
STN	Standard Naphthalene Products Co., Inc--	115 Jacobus Ave., S. Kearny, N.J.
SOC	Standard Oil Co. of California, Western Operations, Inc.	225 Bush St., San Francisco 20, Calif.
SOI	Standard Oil Co. of Indiana-----	910 S. Michigan Ave., Chicago 80, Ill.
STT	Standard Toch Chemicals, Inc-----	2600 Richmond Ter., Staten Island 3, N.Y.
SUC	Standard Ultramarine & Color Co-----	P.O. Box 2166, Huntington 18, W. Va.
STG	Wm. J. Stange Co-----	342 N. Western Ave., Chicago 12, Ill.
SCS	Stanley Works, Stanley Chemical Co. Div	Berlin St., E. Berlin, Conn.
SF	Stauffer Chemical Co-----	380 Madison Ave., New York 17, N.Y.
SFA	Anderson Chemical Co. Div-----	380 Madison Ave., New York 17, N.Y.
CHO	Calhio Chemicals Div-----	380 Madison Ave., New York 17, N.Y.
VIC	Victor Chemical Works Div-----	155 N. Wacker Dr., Chicago 6, Ill.
SCI	Stecker Chemicals, Inc-----	45 N. Broad St., Ridgewood, N.J.
SH	Stein, Hall & Co., Inc-----	285 Madison Ave., New York 17, N.Y.
STP	Stepan Chemical Co-----	Evans and Winnetta, Northfield, Ill.
MYW	Maywood Chemical Works Div-----	100 W. Hunter Ave., Maywood, N.J.
	Sterling Drug, Inc.:	
SDG	Glenbrook Laboratories Div-----	1450 Broadway, New York 18, N.Y.
SDH	Hilton-Davis Chemical Co. Div-----	2235 Langdon Farm Rd., Cincinnati 13, Ohio.
SDW	Winthrop Laboratories Div-----	1450 Broadway, New York 18, N.Y.
SRR	Fred'k A. Stresen-Reuter, Inc-----	400 W. Roosevelt Ave., Bensenville, Ill.
SVC	Sullivan Varnish Co-----	410 N. Hart St., Chicago 22, Ill.
SUM	Summit Chemical Products Corp-----	11 William St., Belleville 9, N.J.
SNA	Sun Chemical Corp., Ansbacher-Siegle Corp. Div.	92 Chestnut Ave., Staten Island 5, N.Y.
SKG	Sunkist Growers, Inc-----	707 W. 5th St., Los Angeles, Calif.
SUN	Sun Oil Co-----	1608 Walnut St., Philadelphia 3, Pa.
SNO	SunOlin Chemical Co-----	1616 Walnut St., Philadelphia, Pa.
SNT	Suntide Refining Co-----	P.O. Box 658, Corpus Christi, Tex.
SWT	Swift & Co-----	4115 S. Packers Ave., Chicago 9, Ill.
SYR	Synco Resins, Inc-----	Henry St., Bethel, Conn.
SYC	Synthetic Chemicals, Inc-----	335 McLean Blvd., Paterson 4, N.J.
SYF	Synthetic Products Co-----	1636 Wayside Rd., Cleveland 20, Ohio.
SYV	Synvar Corp-----	726 King St., Wilmington 99, Del.
TCC	Tanatex Chemical Corp-----	Belleville Turnpike, Kearny, N.J.
TAY	Taylor Fibre Co-----	P.O. Box 471, Norristown, Pa.
TN	Tennessee Corp-----	61 Broadway, New York 6, N.Y.
TNP	Tennessee Products & Chemical Corp----	2611 West End Ave., Nashville 5, Tenn.
TX	Texaco, Inc-----	135 E. 42d St., New York 17, N.Y.
TXB	Texas Butadiene & Chemical Corp-----	440 Bank of the Southwest Bldg., Houston 2, Tex.
TUS	Texas-U.S. Chemical Co-----	P.O. Box 667, Port Neches, Tex.
TXC	Tex Chemical Co-----	20-21 Wagaraw Rd., Fair Lawn, N.J.
TKL	Thiokol Chemical Corp-----	P.O. Box 27, Bristol, Pa.
TMS	Thomasset Colors, Inc-----	120 Lister Ave., Newark 5, N.J.
THC	Thompson Chemical Co-----	90 Mendor Ave., Pawtucket, R. I.
TIC	Ticonderoga Chemical Corp-----	Marguerite Ave., Leominster, Mass.
TRC	Toms River Chemical Corp-----	P.O. Box 71, Toms River, N.J.
TV	Tousey Varnish Co-----	520 W. 25th St., Chicago 16, Ill.
ACT	Arthur C. Trask Co-----	327 S. LaSalle St., Chicago 4, Ill.
TRP	Treplow Chemical Co-----	100 New St., Paterson 1, N.J.
TGL	Triangle Chemical Co-----	206 Lower Elm St., Macon, Ga.
TRJ	Trojan Powder Co-----	17 N. 7th St., Allentown, Pa.
TBK	Trubek Laboratories-----	State Highway 17, E. Rutherford, N.J.
JTC	Joseph Turner & Co-----	P.O. Box 88, Ridgefield, N.J.
UHL	Paul Uhlich & Co., Inc-----	90 West St., New York 6, N.Y.
UNG	Ungerer & Co-----	161 Avenue of the Americas, New York 13, N.Y.
	Union Carbide Corp.:	
UCC	Union Carbide Chemicals Co. Div-----	270 Park Ave., New York 17, N.Y.
UCP	Union Carbide Plastics Co. Div-----	270 Park Ave., New York 17, N.Y.
UCS	Silicones Div-----	270 Park Ave., New York 17, N.Y.
UOC	Union Oil Co. of California-----	461 S. Boylston St., Los Angeles 17, Calif.
UNC	United Cork Companies-----	Central Ave., Kearny, N.J.
URC	United Rubber & Chemical Co-----	P.O. Box 149, Baytown, Tex.
USB	U.S. Borax Research Corp-----	630 Shatto Pl., Los Angeles 5, Calif.
USO	U.S. Oil Co-----	P.O. Box 307, Providence, R.I.
UPF	United States Pipe & Foundry Co-----	3300 1st Ave. N., Birmingham 2, Ala.
USP	U.S. Plastic Products Corp-----	Lake and Whitman Aves., Metuchen, N.J.

TABLE 23.--Synthetic organic chemicals: Directory of manufacturers, 1960--Continued

Code	Name of company	Office address
USR	U.S. Rubber Co., Naugatuck Chemical Div.	1230 Avenue of the Americas, New York 20, N.Y.
UVC	Universal Chemicals Corp-----	48 Hunt St., Central Falls, R.I.
UDI	Universal Detergents, Inc. and Petrochemicals Co.	1825 E. Spring St., Long Beach 6, Calif.
UPM	Universal Oil Products Co-----	30 Algonquin Rd., Des Plaines, Ill.
UWS	Universal Western Chemical Corp-----	12800 E. Imperial Hwy., P.O. Box 487, Norwalk, Calif.
UPJ	Upjohn Co-----	301 Henrietta St., Kalamazoo 99, Mich.
VAL	Valchem-----	1407 Broadway, New York 18, N.Y.
VSV	Valentine Sugars, Inc., Valite Div----	726 Whitney Bldg., New Orleans 2, La.
VNC	Vanderbilt Chemical Corp-----	230 Park Ave., New York 17, N.Y.
VND	Van Dyk & Co., Inc-----	11 William St., Belleville 9, N.J.
VEL	Velsicol Chemical Corp-----	330 E. Grand Ave., Chicago 11, Ill.
VLV	Verley Chemical Co., Inc-----	200 Pulaski St., Newark 5, N.J.
VPC	Verona-Pharma Chemical Corp-----	Box 385, Iorio Ct., Union, N.J.
VPT	Vickers Petroleum Co., Inc-----	P.O. Box 2240, Wichita 1, Kans.
VIN	Vineland Chemical Co-----	W. Wheat Rd., Vineland, N.J.
VC	Virginia-Carolina Chemical Corp-----	401 E. Main St., Richmond 6, Va.
VIS	Visco Products Co-----	1020 Holcombe Blvd., Houston 25, Tex.
VTM	Vitamins, Inc-----	809 W. 58th St., Chicago 21, Ill.
VTV	Vita-Var Corp-----	10 Commerce Ct., Newark 2, N.J.
FRO	Vulcan Materials Co., Frontier Chemical Co. Div.	P.O. Box 545, Wichita 1, Kans.
WTM	Wallace & Tiernan, Inc-----	25 Main St., Belleville 9, N.J.
WTH	Harchem Div-----	P.O. Box 178, Newark 1, N.J.
WTL	Lucidol Div-----	1740 Military Rd., Buffalo 5, N.Y.
WRN	Warner-Jenkinson Manufacturing Co-----	2526 Baldwin St., St. Louis 6, Mo.
WPC	Warren Paint & Color Co-----	700 Wedgewood Ave., Nashville 4, Tenn.
WAS	T. F. Washburn Co-----	2244 Elston Ave., Chicago 14, Ill.
WCA	West Coast Adhesives Co-----	11104 NW. Front Ave., Portland 10, Oreg.
WDC	Western Dry Color Co-----	600 W. 52d St., Chicago 9, Ill.
WOI	Western Organics, Inc-----	12800 E. Imperial Hwy., Santa Fe Springs, Calif.
EW	Westinghouse Electric Corp-----	Gateway Center, Pittsburgh 30, Pa.
WST	Westville Laboratories, Inc-----	Route 110, Monroe, Conn.
WVA	West Virginia Pulp & Paper Co., Polychemicals Div.	270 Park Ave., New York 17, N.Y.
WEV	Geo. D. Wetherill Varnish Co-----	Haddon Ave. and White Horse Pike, Camden 3, N.J.
WRD	Weyerhaeuser Co., Roddis Div-----	Marshfield, Wis.
WRS	Wheeler, Reynolds & Stauffer-----	636 California St., San Francisco 8, Calif.
WBG	White & Bagley Co-----	100 Foster St., Worcester 8, Mass.
WHI	White & Hodges, Inc-----	576 Lawrence St., Lowell, Mass.
WHW	Whittemore-Wright Co., Inc-----	62 Alford St., Boston 29, Mass.
WIC	Wica Co., Inc-----	P.O. Box 506, Charlotte, N.C.
WLM	Wilnot & Cassidy, Inc-----	108 Provost St., Brooklyn 22, N.Y.
WIL	Wilson & Co., Inc., Wilson Laboratories Div.	4221 S. Western Ave., Chicago 9, Ill.
WTC	Witco Chemical Co., Inc-----	122 E. 42d St., New York 17, N.Y.
TAR	Tar Distilling Co., Inc. Div-----	550 5th Ave., New York 36, N.Y.
WTU	Ultra Chemical Works, Inc. Div-----	2 Wood St., Paterson 6, N.J.
WTT	John H. Witte & Sons, Resin Div-----	217 Front St., Burlington, Iowa.
WAW	W. A. Wood Co-----	108 Spring St., Everett 49, Mass.
WRC	Wood Ridge Chemical Corp-----	Park Pl. E., Wood Ridge, N.J.
WON	Woonsocket Color & Chemical Co-----	179 Sunnyside Ave., Woonsocket, R.I.
WYN	Wyandotte Chemicals Corp-----	1609 Biddle Ave., Wyandotte, Mich.
YAC	Yates Co-----	2211 Peninsula Dr., Erie, Pa.
YAW	Young Aniline Works, Inc-----	2731 Boston St., Baltimore 24, Md.

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Wyeth (NYSE: WYE)

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<http://www.wyeth.com>

Hoover's coverage by [Rachel Meyer](#)

Overview

Wyeth is wise in the ways of pharmaceuticals. The company operates in three segments, the largest being its pharmaceuticals business, including antidepressant Effexor, as well as anti-infectives, vaccines, nutrition products, gastroenterology drugs, and treatments for cardiovascular and neurological conditions. Consumer health products subsidiary Wyeth Consumer Healthcare (formerly Whitehall-Robins Healthcare) produces such household names as Advil, Centrum, Robitussin, and Chap Stick. Its Fort Dodge subsidiary makes animal health care products, including vaccines, pharmaceuticals, parasite control, and growth implants.

Sample Overview & History

Key Numbers

Key financials for Wyeth (NYSE: WYE)

Company Type	Public (NYSE: <u>WYE</u>)
Fiscal Year-End	December
2005 Sales (mil.)	\$18,755.8
1-Year Sales Growth	8.1%
2005 Net Income (mil.)	\$3,656.3
1-Year Net Income Growth	196.3%
2005 Employees	49,732
1-Year Employee Growth	(3.2%)

Get more Key Numbers

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Key People

Key people and executives for Wyeth (NYSE: [WYE](#))

Chairman, President, and CEO Robert A. Essner
(Subscribers see complete biographies -- [view sample](#))

EVP and CFO Kenneth J. Martin

SVP, Corporate Business Development Thomas Hofstaetter

[Sample more Key People](#)

TIP: Use [Build Executive List](#) to target decision makers by industry, geography, sales, net income, and number of employees.

CEOs On Camera

Video interviews with leaders of Wyeth (NYSE: [WYE](#))

[Wyeth \(WYE\) Chairman & CEO Robert Essner \(7:21\)](#)
07/20/06 9:50ET - Essner discusses his [company's](#) earnings.

[View More Interviews](#)

Top Competitors

Top competitors of Wyeth (NYSE: [WYE](#))

[Eli Lilly](#)

[Novartis](#)

[Pfizer](#)

There are 20 competitors for Wyeth; see more.

TIP: Analyze the **Competitive Landscape** to view a head-to-head comparison of a firm's profitability, operations, growth, and valuation versus that of its top three competitors.

Industry Information

Primary and secondary industries for Wyeth (NYSE: WYE)

Pharmaceuticals

Pharmaceuticals Manufacturers (primary)

Over-the-Counter Medications

Vitamins, Nutritionals & Other Health-Related Products

Consumer Products Manufacturers

Baby Supplies & Accessories

View More Industry Information

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Industry Watch

Industry analysis videos for the industries of Wyeth (NYSE: WYE)

Rodman & Renshaw Analyst Michael King (3:26)

10/11/06 8:05ET - King discusses Genentech's earnings.

View more industry interviews

Subsidiaries/Affiliates Covered By Hoover's

Subsidiaries/affiliates of Wyeth (NYSE: WYE)

John Wyeth & Brother Ltd.

Wyeth Pharmaceuticals, Inc.

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Rankings

See how Wyeth (NYSE: WYE) ranks in standard industry listings such as Fortune 500, S&P 500, and Dow Jones

#119 in FORTUNE 500

S&P 500

Dow Jones Global Titans

#89 in FT Global 500

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